UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Listing of analytical results for rock, stream-sediment, water, and algae samples; calculated minimum thermal-reservoir temperatures; and the statistical summary of the analytical results for rock and stream-sediment samples, Charles Sheldon wilderness study area, Humboldt and Washoe Counties, Nevada, and Lake County, Oregon

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INTRODUCTION

A geochemical reconnaissance study was undertaken in the Charles Sheldon wilderness study area during the summer of 1975 to aid in the evaluation of the mineral-resource potential and the geothermal potential of the area. For this study, 884 stream-sediment (pl. 1), 396 rock, 1 plant(algae), and 11 water samples were collected (pl. 2). Analytical results for the algae sample are shown on table 1. Statistical data derived from the analytical results for 884 stream-sediment and 396 rock samples are shown on tables 2, 3, and 4. Analytical results and calculated minimum thermal-reservoir temperatures of springs are shown on table 5. Analytical results for stream-sediment and rock samples are shown on table 6.

METHODS

Sampling and Sample-preparation Methods

The geochemical investigation was conducted by John B. Cathrall assisted by David F. Siems, Steve Taylor, and Dwight Rhiner during the summer of 1975.

Stream-sediment samples collected from dry stream channels consisted of several scoops of fine sediment, collected across the width of the main channel after the uppermost layer of sediment was brushed aside to eliminate possible eolian contamination. Stream-sediment samples from flowing streams were collected from midchannel, and where impractical, from the side of the stream channel. The sediment was placed in metal-free cloth bags or paper envelopes. Sample weights ranged from 150 to 250 g (6-10 oz). Wet samples were air dried, and all samples were prepared by shaking through an 80 mesh (0.18 mm) stainless steel sieve. The minus 80 mesh fractions were placed in 0.12 L (4 oz) metal free cardboard containers and saved for analyses.

Three hundred and ninety-six rock samples were collected from outcrops but a few, particularly along escarpments, were float samples. Representative samples of all types and varieties of rocks present in the study area were taken. Although altered and mineralized rocks were looked for, few, if any samples showed visible indication of alteration or mineralization. Sample weights ranged from 0.25 to 0.5 kg (0.5-1 lb); all rocks were crushed in a Chipmunk crusher to approximately <6 mm (<0.25 in.), split through a Jones splitter, and one of the two splits was ground to a minus <150 mesh (<0.1 mm) in a vertical pulverizer using ceramic plates. The remaining split is stored in the U.S. Geological Survey Laboratories in Denver, Colo.

Eleven water samples were collected as close as possible to the orifice of springs. If the spring had several orifices, the discharge from the orifice with the highest temperature was sampled. Water temperatures were determined by using a thermistor probe thermometer. Water samples were collected in plastic metal-free one liter containers that had been rinsed several times with water from the spring being sampled. All samples were collected on the same day and no fixating agents were added. These samples were analyzed one month later. Any effect, such as plating or algae growth, was uniform for all samples.

One algae sample was collected from Bog Hot Spring (Spring J, pl. 2). The sample was air dried, ground in a Wiley Mill, and part of the sample was ashed in a muffle furnace. The ashed and unashed fractions were saved for analysis.

Analytical Methods

The procedures used in analyzing stream-sediment and rock samples were identical. A six-step DC-arc, semiquantitative emission spectrographic method was used for the determinations of Fe, Mg, Ca, Ti, Mn, Ag, As, Au, B, Ba, Be, Bi, Cd, Co, Cr, Cu, La, Mo, Nb, Ni, Pb, Sb, Sc, Sn, Sr, V, W, Y, Zn, and Zr (Grimes and Marranzino, 1968). Atomic absorption spectrophotometry was used to determine Au, Cd, and Zn (Ward and others, 1963, 1969) and Sb (Welsch and Chao, 1976). Mercury was determined by a flameless atomic absorption method described by Vaughn and McCarthy (1964). Arsenic and tungsten were determined by colorimetry (Ward and others, 1963). Neutron activation, delayed neutron counting, was used for U and Th (Millard, 1976). The analyses were done by Elmo F. Cooley, George L. Crenshaw, James T. Hurrell, Roy J. Knight, Hugh T. Millard, Jr., and David F. Siems.

The water samples were analyzed by the U.S. Geological Survey's Central Water Laboratory in Salt Lake City, Utah, by methods of Brown, Skougstad, and Fishman (1970).

The algae sample was analyzed by a six-step DC-arc, semiquantitative emission spectrographic method for the determination of Fe, Mg, Ti, Na, Mn, B, Ba, Be, Cr, La, Mo, Nb, Sc, Sn, Sr, V, W, Y, Zn, Zr, Li, Ge, Tl, Ga, and In (Mosier, 1972). Atomic absorption spectrophotometry was used to determine Cd, Co, Cu, Pb (Nakagawa, 1975), Bi (Ficklin and Ward, 1976), Te, Au (Watterson, 1976), As, Sb, and Hg (Harms and Papp, 1975). Selenium was determined by a fluorimetric method described by Harms and Ward (1975). The analytical results are presented in table 1. The plant analyses were done by William E. Cary, Thelma F. Harms, David F. Siems, and John R. Watterson.

Statistical Methods

All data listed in table 6 were entered into the U.S. Geological Survey computer storage system titled RASS (Rock Analyses Storage System), retrieved, and analyzed statistically, by T. M. Billings, M. L. Marchitti, S. K. McDanal, and R. J. Smith, using the U.S. Geological Survey STATPAC program library (Van Trump and Miesch, in press). Statistical analyses of stream-sediment and rock data are presented in summary form in table 2.

Simple linear correlation coefficients among logarithmic values of element concentrations are shown in tables 3 and 4. These tables also show the number of pairs of values used to compute the coefficients. For cases in which the number of pairs is less than the total number of samples analyzed, the bivariate frequency distribution was censored owing to limitations of the methods of analysis. If the number of pairs was four or less in the uncensored portion of the bivariate population, the correlation coefficient was not computed. Only the correlation coefficient for arsenic by atomic absorption was computed owing to the greater number of pairs of values.

Table 1. *Analytical results of algae samples collected from Beg Hot Spring, (Spring J, pl. 2), Charles Sheldon wilderness study area, Humboldt and Washoe Counties, Nevada, and Lake County, Oregon.*

[Values for Fe, Mg, Ti, and Na reported in percent; all other values reported in ppm (parts per million). N, indicates not detected at limit of determination; L, indicates detected, but below limit of determination. All calculated values indicated by *. To convert ash-weight concentration to dry-weight concentration the following formula is used: ash-weight concentration x percent of ash/100 = dry weight concentration. The percentage of ash = 65 percent. Leaders (---) indicate no data. Analysts: W. E. Cary, T. F. Harms, D. F. Siems, and J. R. Watterson.]

Element	Lower limit of Determination	Concentration	
		In ash-weight	In dry-weight
	Semiquantitative emission spectrography[1]		
Fe	0.05	5	3.3 *
Mg	.02	.5	.3 *
Ti	.002	.7	.5 *
Na	.005	.7	.5 *
Mn	10	1,000	650 *
Ag	.1	N	
B	5	500	N
Ba	20	70	325 *
Be	1	2	46 *
Cr	10	1,000	1.3 *
La	20		650 *
Mo	2	30	
Nb	50	7	20 *
Sc	5	L	5 *
Sn	5	10	L
Sr	100	10	7 *
V	10		7 *
W	50	300	
Y	10	200	20 *
Zn	100	N	130 *
Zr	10	20	N
Li	200	N	13 *
Ge	2	300	N
Tl	2	N	20 *
Ga	2	N	N
In	2	N	N
		20	N
		N	13 *
			N
	Atomic absorption		
[2]Cd	0.4	0.4	0.3 *
[2]Co	1	6	4 *
[2]Cu	1	30	20 *
[2]Pb	4	13	8 *
[3]Bi	--	.2	.1 *
[4]Au	--		
[4]Te	--	.001 *	
[5]As	.05	.005 *	.0009
[5]Sb	.05	34 *	.003
[5]Hg	.01	.8 *	22
		1.5	.5
			.1
	Fluorimetric		
[6]Se	0.01	0.8 *	0.5

1 Mosier, 1972.
2 Nakagawa, 1975.
3 Ficklin and Ward, 1976.
4 Watterson, 1976.
5 Harms and Papp, 1975.
6 Harms and Ward, 1975.

TABLE 2.--*Statistical summary of the analytical results for stream-sediment and rock samples as compared to the crustal abundance for the average igneous rock, Charles Sheldon Wilderness study area, Humboldt and Washoe Counties, Nevada, and Lake County, Oregon.*

[Values for Fe, Mg, Ca, and Ti reported in percent; all other values reported in ppm (parts per million). Lower limits of detection for semiquantitative emission spectrographic analyses: Fe and Ca = 0.05; Mg = 0.02; Ti = 0.002; Mn, Au, B, Bi, Cr, Pb, Sn, V, Y, and Zr = 10; Ag = 0.5; As and Zn = 200; Ba, Cd, La, and Nb = 20; Be = 1; Co, Cu, Mo, Ni, and Sc = 5; Sb and Sr = 100; W = 50. Upper limits of detection for semiquantitative emission spectrographic analyses: Ti = 1; Mg = 10; Fe and Ca = 20; Cd and Au = 500; Be, Bi, La, Sn, and Zr = 1,000; B, Co, Mo, Nb, and Y = 2,000; Mn, Ag, Ba, Cr, Sr, and Ni = 5,000; As, Sb, W, V, and Zn = 10,000; and Cu and Pb = 20,000. Lower limits of detection for all other methods of analysis: Au = 0.05; Zn = 5; Cd = 0.4; Sb = 1; Hg = 0.02; As = 10; W = 20. Upper limit of detection for Hg = 100. Uncensored population is one in which the element concentrations fall within the sensitivity limits of the method used. Censored population is one in which element concentrations are coded with N, L, or G: N, not detected at limit of detection; L, detected but below limit of detection; G, greater than upper limit of detection. n, total number of samples analyzed for the particular element presented. This number is determined by adding columns headed N, L, G, and Number of values. Leaders (--), no data or insufficient data. Analysts: E. F. Cooley, G. L. Crenshaw, R. J. Knight, H. L. Millard, Jr., and D. F. Siems.]

Element	Sample type	Crustal abundance[1]	Data based on the censored population			Data based on the uncensored population				Percentile distribution in ppm based on n samples analyzed			
			N	L	G	Number of values	Range of values	Geometric mean	Geometric deviation	25th	50th	75th	90th
Semiquantitative emission spectrography[2]													
Fe	Rock	5	0	6	0	390	0.02 - 20	1.5	3.9	0.7	2.0	4.1	5.5
	Stream-sediment	--	0	0	1	883	.5 - 20	4.4	1.5	3.3	4.3	5.3	7.1
Mg	Rock	2.9	0	24	0	372	.02 - 3	0.2	3.2	.1	.1	.4	.8
	Stream-sediment	--	0	0	0	884	.15 - 2	.9	1.5	.7	.9	1.1	1.4
Ca	Rock	3.6	0	11	0	385	.05 - 10	.3	3.1	.1	.2	.5	1.0
	Stream sediment	--	0	0	0	884	.05 - 5	1.0	1.5	.8	1.0	1.3	1.9
Ti	Rock	4.4	0	1	1	394	.005- 1	.15	3.7	.1	.2	.4	.7
	Stream sediment	--	0	0	29	855	.1 - 1	.5	1.7	.4	.5	.8	1.1
Mn	Rock	1000	3	4	7	382	20 -5,000	319	3.2	147	350	792	1,492
	Stream sediment	--	0	0	0	884	150 -5,000	976	1.6	759	992	1,259	1,639
Ag	Rock	0.02	394	0	0	2	1 - 3	--	--	--	--	--	--
	Stream sediment	--	880	1	0	3	.7 - 1	--	--	--	--	--	--

[1] Goldschmidt (1954).
[2] Grimes and Marranzino (1968).

TABLE 2.--*Statistical summary of the analytical results for stream-sediment and rock samples as compared to the crustal abundance for the average igneous rock, Charles Sheldon wilderness study area, Humboldt and Washoe Counties, Nevada, and Lake County, Oregon.* --Continued

Element	Sample type	Crustal abundance[1]	Data based on the censored population			Data based on the uncensored population				Percentile distribution in ppm based on n samples analyzed			
			N	L	G	Number of values	Range of values	Geometric mean	Geometric deviation	25th	50th	75th	90th
						Semiquantitative emission spectrography[2]--Continued							
As	Rock	5	389	0	0	7	300 - 1,000	--	--	--	--	--	--
	Stream-sediment	--	884	0	0	0	--	--	--	--	--	--	--
B	Rock	10	1	107	0	288	10 - 150	21	2	--	13	26	44
	Stream-sediment	--	1	7	0	876	10 - 100	25	1.5	20	24	33	44
Ba	Rock	430	0	9	2	385	20 - 5,000	369	3.5	117	405	1,041	1,840
	Stream-sediment	--	0	0	0	884	100 - 2,000	622	1.5	463	617	774	1,029
Be	Rock	6	2	23	0	371	1 - 50	2.6	2.1	1.5	2.2	3.4	6.5
	Stream-sediment	--	4	26	0	854	1 - 7	1.7	1.4	1.3	1.9	2.3	2.6
Bi	Rock	.2	395	0	0	1	10 -	--	--	--	--	--	--
	Stream-sediment	--	884	0	0	0	--	--	--	--	--	--	--
Co	Rock	40	79	226	0	91	5 - 100	10.4	2.0	--	--	--	10
	Stream-sediment	--	1	9	0	874	5 - 70	15.7	1.7	11	18	23	29
Cr	Rock	200	54	244	0	98	10 - 200	17	1.8	--	--	--	20
	Stream-sediment	--	0	3	0	881	10 - 200	41	1.7	31	44	53	71
Cu	Rock	70	1	131	0	264	5 - 200	9	1.8	--	5.1	11	18
	Stream-sediment	--	0	0	0	884	5 - 50	21	1.5	18	23	30	35
La	Rock	18.3	3	68	0	325	20 - 200	63	1.5	40	51	73	102
	Stream-sediment	--	3	3	0	878	20 - 200	55	1.4	43	50	62	79

[1] Goldschmidt (1954).
[2] Grimes and Marranzino (1968).

TABLE 2.--*Statistical summary of the analytical results for stream-sediment and rock samples as compared to the crustal abundance for the average igneous rock, Charles Sheldon wilderness study area, Humboldt and Washoe Counties, Nevada, and Lake County, Oregon.* --Continued

Element	Sample type	Crustal abundance[1]	Data based on the censored population			Data based on the uncensored population				Percentile distribution in ppm based on n samples analyzed			
			N	L	G	Number of values	Range of values	Geometric mean	Geometric deviation	25th	50th	75th	90th
						Semiquantitative emission spectrography[2]--Continued							
Mo	Rock	2.3	300	36	0	60	5 - 500	16	3.3	--	--	--	9.2
	Stream-sediment	--	723	87	0	74	5 - 20	8	1.5	--	--	--	--
Nb	Rock	20	7	382	0	7	20 - 50	--	--	--	--	--	--
	Stream-sediment	--	24	814	0	46	10 - 50	21	1.6	--	--	--	--
Ni	Rock	100	4	292	0	100	5 - 200	9	2.2	--	--	4	8
	Stream-sediment	--	0	12	0	892	5 - 100	19	1.7	14	21	26	37
Pb	Rock	16	39	48	0	309	10 - 100	20	1.6	9	19	24	33
	Stream-sediment	--	1	3	0	880	10 - 70	22	1.4	20	23	30	37
Sb	Rock	1	349	10	0	37	100 - 1,000	215	1.9	--	--	--	--
	Stream-sediment	--	880	2	0	2	100 - 200	--	--	--	--	--	--
Sc	Rock	5	44	84	0	268	5 - 100	10	1.9	--	6	17	23
	Stream-sediment	--	1	1	0	882	5 - 30	15	1.4	13	17	21	24
Sn	Rock	40	373	7	0	16	10 - 70	14	1.8	--	--	--	--
	Stream-sediment	--	866	15	0	3	10 - 100	--	--	--	--	--	--
Sr	Rock	150	39	162	1	194	100 - 1,500	232	1.9	--	--	249	413
	Stream-sediment	--	1	1	0	882	100 - 1,000	360	1.5	286	372	467	533
V	Rock	150	0	23	0	373	10 - 500	38	2.4	19	35	65	111
	Stream-sediment	--	0	0	0	884	20 - 1,000	102	1.5	83	101	127	184
W	Rock	1	375	7	0	14	50 - 500	81	1.9	--	--	--	--
	Stream-sediment	--	882	1	0	1	50 -	--	--	--	--	--	--

1/ Goldschmidt (1954).
2/ Grimes and Marranzino (1968).

TABLE 2.--*Statistical summary of the analytical results for stream-sediment and rock samples as compared to the crustal abundance for the average igneous rock, Charles Sheldon wilderness study area, Humboldt and Washoe Counties, Nevada, and Lake County, Oregon.* --Continued

Element	Sample type	Crustal abundance[1]	Data based on the censored population			Data based on the uncensored population				Percentile distribution in ppm based on n samples analyzed			
			N	L	G	Number of values	Range of values	Geometric mean	Geometric deviation	25th	50th	75th	90th
						Semiquantitative emission spectrography[2]--Continued							
Y	Rock	28.1	3	43	0	350	10 - 300	43	1.9	23	41	56	89
	Stream-sediment	--	0	1	0	883	10 - 200	47	1.5	28	38	48	55
Zn	Rock	80	354	21	0	21	200 - 1,000	--	--	--	--	--	--
	Stream-sediment	--	861	13	0	10	200 - 500	--	--	--	--	--	--
Zr	Rock	220	0	15	9	372	10 - 1,000	202	2.4	178	251	342	490
	Stream-sediment	--	0	0	5	879	50 - 1,000	248	1.5	204	259	330	382
						Atomic Absorption							
[3]Au	Rock	0.001	283	11	0	4	0.06 - 0.84	--	--	--	--	--	--
	Stream	--	152	0	0	0	-- --	--	--	--	--	--	--
[3]Zn	Rock	80	0	2	0	394	.6 - 190	13	3.2	7	15	28	57
	Stream-sediment	--	0	0	0	884	9.8 - 216	30	1.4	23	30	37	49
[3]Cd	Rock	.18	22	147	0	227	.4 - 6.8	1.1	1.9	--	.5	1.2	2.0
	Stream-sediment	--	28	273	0	581	.4 - 2	.5	1.3	--	.4	.5	.7
[4]Sb	Rock	1	42	120	0	234	1 - 800	4	4.7	--	1.0	3.6	22
	Stream-sediment	--	309	404	0	170	.5 - 60	2	2.7	--	--	--	1
[5]Hg	Rock	[6].06	11	27	8	350	.02 - 82	.44	7.3	.1	.2	1.4	10
	Stream-sediment	--	18	21	1	844	.02 - 38.5	.08	3.2	.04	.05	.11	.37

1/ Goldschmidt (1954).
2/ Grimes and Marranzino (1968).
3/ Ward and others (1963).
4/ Welsch and Chao (1976).
5/ Vaughn and McCarthy (1965).
6/ Green (1959).

TABLE 2.--*Statistical summary of the analytical results for stream-sediment and rock samples as compared to the crustal abundance for the average igneous rock, Charles Sheldon wilderness study area, Humboldt and Washoe Counties, Nevada, and Lake County, Oregon.* --Continued

Element	Sample type	Crustal abundance[1]	Data based on the censored population			Data based on the uncensored population					Percentile distribution in ppm based on n samples analyzed			
			N	L	G	Number of values	Range of values		Geometric mean	Geometric deviation	25th	50th	75th	90th
						Colorimetry								
[3]As	Rock	5	0	24	0	372	10	- 1,400	24	2.4	10	21	40	86
	Stream-sediment	--	14	9	0	861	10	200	19	1.7	11	21	26	41
[3]W	Rock	1	192	199	0	5	--	--	--	--	--	--	--	--
	Stream-sediment	--	--	--	--	--	--	--	--	--	--	--	--	--
						Neutron Activation[7]								
U	Rock	4	0	0	0	90	0.36	- 860	12	4.6	4	8	35	133
	Stream-sediment	--	0	0	0	44	2.6	- 13	5	1.4	3	5	6	7
Th	Rock	11.5	0	0	0	60	3	- 25	17	2.3	10	17	24	56
	Stream-sediment	--	0	0	0	42	5	- 32	13	1.4	9	13	17	22

[1] Goldschmidt (1954).
[3] Ward and others (1963).
[7] Millard (1976).

TABLE 3--*Simple linear correlation coefficients between logarithmic values of the element concentrations in 884 stream-sediment samples, Charles Sheldon Wilderness Study Area, Washoe and Humboldt Counties, Nevada, and Lake County, Oregon*

[Upper half of table contains correlation coefficients, multiplied by 100; lower half is the number of pairs of values used to compute coefficients. Where number of pairs is less than 884, the bivariate frequency distribution was censored owing to the limitations of the method of analysis. **** indicates correlation coefficient was not computed. Methods of analysis, indicated in the row and column headings: S = Emission spectroscopy; Inst = Flameless atomic absorption; AA = Atomic absorption; CM = Colorimetry; and AC = Neutron activation.]

	S-FE	S-MG	S-CA	S-TI	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SC	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-MO	AA-ZN	AA-CD	AA-SB	CM-AS	AC-TH	AC-U	
S-FE		49	24	62	51	-25	29	-37	47	27	42	6	20	-9	40	-7	49	31	52	6	9	22	2	23	-12	8	-2	-9	2	S-FE
S-MG	883		48	45	31	-21	21	-32	37	24	44	-14	-10	-49	50	-17	32	34	46	-8	-7	14	-4	7	2	-1	-7	-5	-3	S-MG
S-CA	883	884		22	11	-1	25	-19	13	8	20	-23	-22	-46	27	-4	7	35	30	-17	-10	0	-2	-7	18	-5	-9	-19	-27	S-CA
S-TI	855	855	855		46	-36	42	-44	43	33	37	0	35	-38	34	-9	54	39	49	8	36	21	10	15	-25	16	6	-42	-52	S-TI
S-MN	883	884	884	855		-17	32	-22	39	15	17	10	5	-7	19	2	30	20	29	10	8	19	6	23	-9	18	12	-32	0	S-MN
S-B	876	876	876	852	876		-32	50	-24	-23	-30	10	-41	39	-15	41	-33	-30	-21	5	47	-6	-4	-10	19	-25	0	63	54	S-B
S-BA	883	884	884	855	884	876		-35	24	9	23	-5	34	-15	13	-4	39	45	18	9	-29	7	12	13	-20	14	7	-60	-47	S-BA
S-BE	854	854	854	836	854	850	854		-33	-28	-28	11	-32	69	-31	37	-42	-33	-31	19	11	2	0	-6	21	-5	0	42	60	S-BE
S-CO	873	874	874	845	874	866	874	844		43	41	1	27	-32	69	-5	54	38	42	-9	0	-1	0	18	-12	-3	-2	-44	-23	S-CO
S-CR	880	881	881	852	881	873	881	851	873		34	8	20	-21	45	-7	41	24	28	1	57	8	-2	8	-21	-24	-4	-45	-42	S-CR
S-CU	883	884	884	855	884	876	884	854	874	881		-6	23	-26	55	-18	41	29	43	1	44	10	-1	30	-8	-19	-6	-27	-20	S-CU
S-LA	877	878	878	850	878	873	878	850	868	875	878		8	22	-10	19	5	-7	-6	37	47	19	4	-1	-8	6	2	43	22	S-LA
S-MO	74	74	74	73	74	72	74	74	73	74	74	72		8	-2	9	44	41	20	44	50	25	8	6	-47	16	43	-25	-1	S-MO
S-NB	46	46	46	42	46	44	46	43	46	46	46	45	18		-32	28	-22	-51	-37	31	****	32	28	-13	****	****	-17	-91	-11	S-NB
S-NI	871	872	872	843	872	864	872	842	865	872	872	866	72	46		-14	42	30	39	-11	-8	-9	-4	16	-6	-13	-9	-7	-12	S-NI
S-PB	879	880	880	851	880	872	880	850	871	878	880	874	74	46	869		-6	-3	-9	25	-41	15	8	0	-6	-8	6	18	17	S-PB
S-SC	881	882	882	853	882	874	882	852	873	880	882	876	74	46	871	879		40	39	15	-6	5	5	21	-18	7	1	-37	-13	S-SC
S-SR	882	882	882	855	882	876	882	854	872	879	882	876	74	46	870	878	880		29	-1	16	0	1	4	-20	-9	1	-51	-52	S-SR
S-V	883	884	884	855	884	876	884	854	874	881	884	878	74	46	872	880	882	882		-6	-24	16	0	22	-6	-4	0	-45	-33	S-V
S-Y	882	883	883	854	883	875	883	853	874	881	883	877	74	46	872	880	882	881	883		-20	29	8	2	-5	9	1	12	22	S-Y
S-ZN	12	12	12	7	12	12	12	11	12	12	12	12	3	1	12	12	12	12	12	12		-6	70	-23	-18	-45	7	****	****	S-ZN
S-ZR	879	879	879	853	879	874	879	852	869	876	879	873	74	45	867	875	877	879	879	878	12		0	8	-10	11	6	-2	-5	S-ZR
INST-MO	843	844	844	816	844	837	844	817	834	841	844	839	69	39	832	840	842	842	844	843	12	840		5	3	23	3	8	-6	INST-MO
AA-ZN	883	884	884	855	884	876	884	854	874	881	884	878	74	46	872	880	882	882	884	883	12	879	844		7	6	17	23	29	AA-ZN
AA-CD	580	581	581	566	581	579	581	564	575	579	581	580	56	19	573	577	580	580	581	580	9	578	555	581		-4	-7	45	40	AA-CD
AA-SB	170	170	170	164	170	169	170	165	169	169	170	169	20	2	166	170	170	170	170	170	5	169	165	170	127		31	11	-14	AA-SB
CM-AS	860	861	861	832	861	853	861	831	852	859	861	855	69	37	850	858	860	859	861	861	12	856	821	861	567	169		-42	-28	CM-AS
AC-TH	42	42	42	39	42	38	42	41	41	41	42	40	19	4	39	42	42	42	42	42	1	41	39	42	29	6	39		74	AC-TH
AC-U	44	44	44	40	44	41	44	42	43	43	44	43	18	5	41	44	44	44	44	44	2	43	41	44	31	6	41	41		AC-U

TABLE 4--*Simple linear correlation coefficients between logarithmic values of the element concentrations in 396 rock samples, Charles Sheldon Wilderness Study Area, Washoe and Humboldt Counties, Nevada, and Lake County, Oregon*

[Upper half of table contains correlation coefficients, multiplied by 100; lower half is the number of pairs of values used to compute coefficients. Where number of pairs is less than 396, the bivariate frequency distribution was censored owing to the limitations of the method of analysis. **** indicates correlation coefficient was not computed. Methods of analysis, indicated in the row and column headings: S = Emission spectroscopy; Inst = Flameless atomic absorption; AA = Atomic absorption; CM = Colorimetry; and AC = Neutron activation.]

	S-FE	S-MG	S-CA	S-TI	S-MN	S-B	S-BA	S-BE	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SR	S-SC	S-GA	S-V	S-W	S-Y	S-ZN	S-ZR	INST-MO	AA-ZN	AA-CD	AA-SB	CM-AS	CM-W	AC-TH	AC-U
S-FE		45	28	55	43	-9	47	-10	25	0	17	1	-16	-75	42	-8	3	45	-23	5	42	-33	23	-24	19	22	34	45	6	17	-23	-23	-22
S-MG	368		57	54	36	-5	31	-10	43	26	29	-5	-12	-55	78	-8	-1	42	53	24	39	-15	1	54	0	10	25	27	4	-7	-54	-10	-13
S-CA	282	363		26	22	-1	12	-2	17	13	21	-1	-4	****	35	-5	15	17	-2	14	27	-26	3	15	-7	1	17	23	0	-6	-59	1	0
S-TI	368	370	383		32	-24	70	-25	5	0	8	1	-20	97	60	-9	13	63	-39	29	25	-29	12	-23	18	20	27	12	17	3	-20	-30	-24
S-MN	376	345	373	380		7	37	-7	59	8	18	9	-16	-33	22	6	54	16	-22	21	38	-5	27	-14	19	0	-19	24	-5	-1	94	-6	-14
S-B	260	282	284	287	284		-30	38	-13	-9	-2	25	25	****	-7	26	19	-11	-57	-15	-4	-33	24	65	37	-15	11	-5	-8	-2	-72	33	4
S-BA	379	361	374	383	373	283		-16	16	-8	6	-2	-13	-25	3	-11	31	52	-19	25	29	0	14	-41	11	21	19	15	33	17	15	-21	-20
S-BE	367	360	362	369	363	281	360		-1	-4	7	10	22	-54	-1	22	-5	-17	-25	-15	10	59	1	50	-5	-7	21	0	-7	3	-37	90	44
S-CO	91	91	91	90	88	83	90	86		58	20	10	25	****	63	4	14	16	****	2	32	****	25	****	14	7	0	37	-6	-6	****	4	7
S-CR	98	95	98	97	93	72	96	91	45		39	-9	12	****	82	15	2	3	****	-9	12	30	-16	59	-15	-2	-6	1	5	-7	100	-76	-1
S-CU	264	251	262	263	252	209	260	248	89	90		-7	57	****	49	6	-18	7	-5	2	66	93	0	-12	-11	3	28	24	-3	21	11	-75	-12
S-LA	323	309	317	323	316	271	321	307	88	80	239		-3	****	-6	25	-4	3	-43	17	-11	-52	46	54	33	-3	9	5	-4	-5	-99	50	10
S-MO	60	60	60	60	57	44	57	60	17	12	41	47		****	16	56	****	-24	****	4	45	****	-23	57	-20	5	10	34	44	65	50	20	17
S-NB	7	7	6	7	7	6	7	7	1	0	4	5	1		****	****	****	****	****	****	-40	****	0	****	****	100	-91	****	-19	-30	****	****	****
S-NI	99	100	100	99	98	85	98	96	50	42	69	93	24	1		2	3	51	****	14	43	-25	-2	-93	-17	5	10	55	26	-4	****	-7	-22
S-PB	309	296	306	308	297	265	304	298	87	82	233	249	48	6	90		-27	0	-15	11	-4	67	41	-12	27	-6	6	-8	-8	5	-41	31	3
S-SB	37	35	37	37	34	31	36	37	10	21	31	28	1	0	11	28		38	****	9	8	-26	11	-51	-16	7	-21	27	83	3	-99	-53	-30
S-SC	268	255	264	267	260	214	260	254	87	83	212	246	50	2	88	245	28		****	24	21	-20	30	-16	5	25	26	23	68	21	-1	-25	-52
S-GA	16	16	15	16	16	14	16	16	1	1	14	15	0	2	3	16	0	3		****	-17	****	-50	****	-27	40	-39	78	-3	-10	****	****	****
S-V	194	179	193	193	183	145	192	177	78	77	172	178	27	0	66	176	24	181	1		18	20	0	10	-4	-6	1	4	3	10	80	7	-28
S-W	349	354	362	371	359	271	362	352	91	96	261	307	59	6	99	293	37	262	16	193		63	0	34	-8	10	32	37	1	32	84	-72	-16
S-W	14	13	14	14	11	10	13	13	4	11	13	17	1	0	6	13	12	11	0	12	14		25	****	-48	-20	-24	2	-21	40	5	****	98
S-Y	350	355	344	349	339	225	341	337	91	94	255	314	56	7	99	306	32	264	16	189	343	13		-24	47	6	22	10	7	-2	34	-14	-16
S-ZN	21	21	21	21	19	16	18	21	3	10	18	15	6	0	4	17	4	14	3	10	21	2	21		37	-16	58	-21	-13	-23	****	22	17
S-ZR	367	351	363	371	359	278	362	353	89	93	256	314	59	5	97	300	35	265	12	191	352	14	357	20		4	11	4	0	-5	-11	-2	-23
INST-MO	344	328	339	349	329	261	339	328	86	93	240	299	42	7	95	283	32	234	15	182	328	14	332	15	331		18	18	18	18	-74	-22	-5
AA-ZN	393	371	384	392	380	288	383	370	91	98	264	325	60	7	100	308	37	267	16	195	372	14	369	21	372	348		23	0	6	-50	3	6
AA-CD	227	214	224	225	218	169	220	213	78	82	166	199	35	3	67	195	31	185	7	154	225	12	211	12	217	201	227		6	7	25	-2	-3
AA-SB	234	217	226	233	225	163	223	219	48	71	158	183	37	5	55	178	30	162	10	109	225	13	210	18	217	197	253	129		26	-14	29	14
CM-AS	346	349	361	370	356	270	364	347	86	94	253	310	58	7	96	294	36	255	15	187	353	14	331	19	349	332	370	213	222		0	-14	-9
CM-W	5	4	5	5	3	3	4	4	1	2	5	2	3	0	1	3	2	3	0	3	5	3	4	0	5	3	5	4	5	5		****	-79
AC-TH	59	58	60	60	57	50	56	59	19	13	37	52	21	0	17	54	6	44	1	27	49	0	57	6	59	44	67	36	29	51	0		94
AC-U	90	89	90	89	86	58	80	89	20	22	53	62	35	0	24	62	8	58	1	38	80	3	80	11	84	60	90	53	57	77	3	59	

DISCUSSION OF TABLE 5

Table 5 lists the spring or well name, location, topographic map coverage, chemical composition, and calculated minimum thermal-reservoir temperatures.

Water chemistry has proved valuable in estimating subsurface temperatures, and the various techniques are described by Mahon (1970), Fournier and Rowe (1966), White (1970), and Fournier and Truesdell (1973). The most quantitative temperature indicators have been shown to be (1) the variation in solubility of quartz as a function of temperature and (2) the temperature dependence of base exchange or partitioning of alkalies (Na and K) between solutions and solid phases with a correction applied for the calcium content of the water (the Na-K-Ca geothermometer). Some uncertainty exists with both methods and, in any particular area, subsurface information may be necessary in order to determine the most effective method. Fournier, White, and Truesdell (1974) present a set of guidelines for determining which subsurface-temperature estimate may best indicate the thermal-aquifier temperature. They recommend a procedure based on the temperature and the discharge of the spring.

Lacking knowledge of subsurface reactions and discharge rate, calculated subsurface temperatures were determined using both the quartz solubility and Na-K-Ca geothermometers. For the quartz solubility geothermometer, the equation is

$$-\log_{10} C_{Si}O_2(aq) = (1.309 \times 10^3 T) - 5.19$$

where T = temperature in kelvins, and

$C_{Si}O_2$ = concentration of silica in milligrams per liter.

For calculations of subsurface temperatures from Na-K-Ca concentrations, the equation for temperatures above 100°C is,

$$\log_{10}(M_{Na^+}/M_{K^+}) + 1/3 \log 10 \left(\sqrt{M_{Ca^{+2}}}/M_{Na^+}\right) = 1647/T - 2.240$$

where T = temperature in kelvins, and

M_{Na^+} = molality of sodium ion,

M_{K^+} = molality of potassium ion, and

$M_{Ca^{+2}}$ = molality of calcium ion.

For temperatures below 100°C the equation is,

$$\log_{10}(M_{Na^+}/M_{K^+}) + 4/3 \log_{10}\left(\sqrt{M_{Ca^{+2}}}/M_{Na^+}\right) = 1647/T - 2.240$$

[Analyses by U.S. Geological Survey, methods of analyses by Brown, Skougstad, and Fishman (1970); temperatures in degrees celsius (C) and fahrenheit (F). Springs are identified on the following topographic quadrangles: A-H, Big Springs Butte; J-K, Railroad Point; and L, Denio.]

Spring or Well Latitude, Longitude	Temperature (C)	(F)	Milligrams Per Litre: Cations: Calcium (Ca)	Magnesium (Mg)	Potassium (K)	Sodium (Na)	Anions: Bicarbonate (HCO_3)	Carbonate (CO_3)	Chloride (Cl)	Flouride (F)	Sulfate (SO_4)	Alkalinity as $CaCO_3$	Hardness Total (Ca, Mg)	Hardness Non-carbonate	Silica (SiO_2)	Lithium (Li)	Boron (B)	Antimony (Sb)	Arsenic (As)	Mercury (Hg)	Calculated sum of dissolved residues	Dissolved Solids (Tons per acre foot)	Sodium Adsorption Ratio	Percent of Sodium	Calculated Reservoir Temperature: Silica Conductive-Cooling Geothermometer (C)	(F)	Sodium-Potassium-4/3 Calcium Geothermometer (C)	(F)
A. Virgin Valley Campground 1 41°51'12", 119°00'03"	32	90	3.7	0	0.4	29	64	0	4.7	1.8	12	52	9	0	32	0.03	0.08	0.002	0.007	0.0000	115	0.16	4.2	87	82	180	76	172
B. Roadside Rest 2 41°52'34", 119°02'25"	18	64	1	0	1.8	31	69	0	4.9	1	9	57	3	0	54	.03	.07	.000	.010	.0000	137	.19	8.5	93	105	221	96	205
C. Roadside Rest 3 41°52'31", 119°02'51"	18	64	2.1	0.1	2.8	31	74	0	5	.9	9	61	6	0	57	.02	.07	.000	.014	.0000	144	.20	5.7	88	108	226	96	205
D. Roadside Rest 4 41°52'28", 119°02'45"	17	63	12	.7	3.7	32	109	0	6	.8	10	89	33	0	56	.03	.07	.000	.019	.0000	175	.24	2.4	65	107	225	65	149
E. Roadside Rest 5 41°52'29", 119°02'42"	17	63	2.7	.2	2.9	30	73	0	5.2	.9	9.1	60	8	0	57	.02	.07	.000	.018	.0000	144	.20	4.7	85	108	226	89	192
F. Big Springs Cold 6 41°55'25", 119°09'30"	13	55	5.3	1.1	2.4	8.2	34	0	3.1	.2	4.3	28	18	0	32	.002	.05	.001	.002	.0001	73	.10	.8	46	82	180	55	131
G. Virgin Valley Ranch Hot 10 41°47'20", 119°06'27"	21	70	3.2	.3	4	21	50	0	5.9	.6	11	41	9	0	53	.01	.08	.002	.008	.0000	124	.17	3	76	105	221	121	250
H. Virgin Valley Ranch Cold 11 41°48'16", 119°05'26"	10	50	3.0	.6	7.4	45	90	0	11	.5	28	74	10	0	54	.02	.09	.000	.012	.0000	194	.25	6.2	93	105	221	125	262
J. Bog Hot 7 41°55'25", 118°48'16"	54	129	0	0	.9	77	125	0	15	1.7	46	103	0	0	56	.02	.71	.004	.033	.0000	259	.35	.0	99	107	225	101	214
K. Bog Cold 8 41°55'57", 118°48'29"	10	50	11	1.8	12	56	145	0	19	1	17	119	35	0	56	.02	.10	.000	.020	.0000	260	.35	4.1	71	107	225	121	250
L. Baltazor Hot 9 41°55'18", 118°42'33"	83	181	14	.2	8.6	180	163	0	48	6.6	220	134	36	0	130	.20	2	.007	.160	.0007	690	.94	13	89	152	306	153	307

DISCUSSION OF TABLE 6

Column 1 lists the sample numbers that correspond with the quadrangle headings. For example, page of table 6 lists three quadrangles. The first quadrangle listed is -- BADGER MOUNTAIN NW 7.5 MINUTE QUADRANGLE. This quadrangle has 7 sample listings in column 1. Two sample numbers 4 in column 1 indicates that two different rock samples were collected at the same locality. Plate 2 (rock locality map) shows these 7 sample number listings enclosed within the Badger Mountain NW quadrangle.

The latitude and longitude in degrees, minutes, and seconds are shown in columns 2 and 3. The remaining columns list the elements for which data are available.

The following examples illustrate the element column headings:

S-Fe% - Semiquantitative spectrographic analyses of iron in percent.

S-Mn - Semiquantitative spectrographic analyses of manganese in ppm (parts per million).

Inst-Hg - Flameless atomic absorption analyses of mercury in ppm (parts per million).

AA-Cd - Atomic absorption analyses of cadmium in ppm (parts per million).

Cm-As - Colorimetric analyses of arsenic in ppm (parts per million).

Ac-Th - Neutron activation, delayed neutron counting, analyses of thorium in ppm (parts per million).

Data qualifier (censoring) codes are used with some reported values. Their letter codes are the following:

N = Not detected at the level of detection or at the value shown.

L = Detected, but below the limit of detection or below value shown.

G = Greater than the value shown.

B = No data available.

The lower limits of detection for semiquantitative emission spectrographic analyses presented are as follows: (Ti, Mg, Fe, and Ca are reported in %; all other elements are reported in ppm); Ti = 0.002; Mg = 0.02; Fe and Ca = 0.05; Be = 1; Co, Cu, Mo, Ni, and Sc = 5; Mn, Au, B, Bi, Cr, Pb, Sn, V, Y, and Zr = 10; Ba, Cd, La, and Nb = 20; W = 50; Sb and Sr = 100; and As and Zn = 200. Lower limits of detection for all other methods of analysis are: Au = 0.05; Zn = 5; Cd = 0.4; Sb = 1; Hg = 0.02; As = 10; and W = 20.

The upper limits of detection for semiquantitative emission spectrographic analyses presented are as follows: (Ti, Mg, Fe, and Ca are reported in %; all other elements are reported in ppm), Ti = 1; Mg = 10; Fe and Ca = 20; Sc = 100; Au and Cd = 500; Be, Bi, La, Sn, and Zr = 1,000; B, Co, Mo, Nb, and Y = 2,000; Mn, Ag, Ba, Cr, Sr, and Ni = 5,000; As, Sb, W, V, and Zn = 10,000; and Cu and Pb = 20,000. The upper limit of detection for flameless atomic absorption Hg = 100.

Analytical results of rocks begin on p. 23 of table 6 and the analytical results of stream-sediment samples begin on p. 56.

Listed below are the semiquantitative spectrographic analytical results only for: rock samples in which either Ag, As, or Bi were detected; and stream-sediment samples in which either Ag, Sb, or W were detected. These results do not appear in table 6.

Rock samples

Quadrangle	Sample	Latitude	Longitude	Element		
				S-Ag	S-As	S-Bi
Blowout Mtn.	8	41° 43' 11"	119° 18" 6"	0.5N	200N	10
Bald Mtn.	31	41° 48' 30"	119° 36' 17"	.5N	300	10N
Big Spring Butte	3	41° 53' 7"	119° 4' 59"	.5N	300	10N
Big Spring Butte	27	41° 52' 12"	119° 2' 12"	3.0	200N	10N
Calcutta Lake	2	41° 50' 18"	119° 39' 24"	.5N	500	10N
Calcutta Lake	44	41° 51' 3"	119° 40' 8"	.5N	1,000	10N
Calcutta Lake	54	41° 50' 17"	119° 39' 24"	1.0	500	10N
Railroad Point	4	41° 48' 47"	118° 51' 34"	.5N	1,000	10N
Rock Springs	33	41° 43' 45"	119° 7' 3"	.5N	500	10N

Stream-sediment samples

Quadrangle	Sample	Latitude	Longitude	Element		
				S-Ag	S-Sb	S-W
Badger Mtn. N. W.	31	41° 38' 51"	119° 28' 54"	1.0	100N	50N
Blowout Mtn.	29	41° 43' 44"	119° 18' 16"	0.5L	100N	50N
Bald Mtn.	31	41° 48' 26"	119° 34' 40"	.5N	200	50N
Calcutta Lake	24	41° 50' 17"	119° 39' 20"	.5N	100L	50N
Railroad Point	54	41° 54' 10"	118° 56' 59"	1.0	100N	50N
Railroad Point	91	41° 51' 25"	118° 59' 49"	.5N	100	50
Railroad Point	92	41° 51' 19"	118° 59' 49"	.5N	100L	50L
Railroad Point	123	41° 48' 38"	118° 59' 30"	.7	100N	50N

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Table 6. *Analytical results for 396 rock and 884 stream-sediment samples, Charles Sheldon wilderness study area, Humboldt and Washoe Counties, Nevada, and Lake County, Oregon.*

[See page 17 for explanation. Rock results shown on plate 2 begin on page 23 and stream-sediment samples shown on plate 1 begin on page S6.]

SAMPLE No.	LATITUDE	LONGITUD	S-FES	S-MGS	S-CAS	S-TIS	S-MN	S-B	S-BA	S-BE
			BADGER MOUNTIAN NW 7,5 MINUTE QUADRANGLE							
1	41 40 1	119 23 17	2,00	,07	0,15	,100	200	20	100	5,0
2	41 45 5	119 23 8	3,00	,07	0,15	,100	500	20	100	5,0
3	41 38 2	119 24 12	0,20	,05	0,20	,030	300	10 L	150	1,0
4	41 37 37	119 26 25	1,00	,20	0,50	,150	300	20	1000	2,0
4	41 37 37	119 26 25	1,00	,10	0,50	,150	300	15	1000	2,0
5	41 41 18	119 23 11	0,50	,02	0,07	,070	200	50	300	2,0
6	41 43 58	119 27 27	0,30	,05	0,07	,010	100	15	300	2,0
			BADGER MOUNTIAN SE 7,5 MINUTE QUADRANGLE							
1	41 34 54	119 22 26	0,10	,05	0,10	,020	100	10 L	150	2,0
1	41 34 54	119 22 26	0,70	,30	1,00	,200	150	10 L	1500	1,0
1	41 34 54	119 22 26	2,00	,10	0,10	,070	200	50	70	3,0
1	41 34 54	119 22 26	1,00	,05	0,10	,070	200	20	150	3,0
2	41 35 18	119 20 12	0,07	,07	0,07	,030	150	10 L	100	1,5
3	41 34 24	119 18 29	0,05 L	,05	0,07	,010	50	15	500	1,5
4	41 35 21	119 18 14	0,05 L	,03	0,05 L	,005	50	15	100	1,0
5	41 36 7	119 15 56	2,00	,10	0,10	,070	1000	20	1500	5,0
5	41 36 7	119 15 56	0,10	,02	0,07	,030	150	15	100	3,0
6	41 34 18	119 15 51	0,20	,10	0,10	,030	100	10 L	200	1,0
7	41 34 55	119 17 35	0,70	,50	0,50	,200	200	10	700	1,0
			BLOWOUT MOUNTIAN 7,5 MINUTE QUADRANGLE							
1	41 43 27	119 18 6	0,10	,05	0,10	,007	150	10 L	150	10,0
2	41 40 10	119 16 8	0,10	,05	0,20	,020	100	10 L	100	50,0
3	41 41 43	119 19 41	1,00	,50	1,00	,100	500	10 L	1000	2,0
4	41 43 44	119 18 16	2,00	,05	0,05	,070	500	50	500	10,0
5	41 40 33	119 22 17	2,00	,05	0,10	,100	300	50	100	5,0
6	41 41 53	119 21 42	15,00	,02	0,05	,070	5000 G	30	1500	20,0
6	41 41 53	119 21 42	3,00	,05	0,10	,070	200	50	200	5,0
7	41 42 8	119 19 0	0,10	,05	0,20	,020	150	10 L	500	3,0
7	41 42 8	119 19 0	0,10	,02	0,15	,020	200	10 L	300	5,0
7	41 42 8	119 19 0	0,30	,30	0,50	,050	1500	10	500	10,0
8	41 43 11	119 18 6	0,15	,05	0,20	,015	150	10 L	200	10,0
8	41 43 11	119 18 6	0,70	,20	0,10	,070	300	20	200	5,0
9	41 43 42	119 16 6	2,00	,10	0,07	,100	700	50	50	5,0
10	41 43 40	119 15 47	3,00	,05	0,05	,100	700	30	70	5,0
11	41 40 9	119 16 57	1,00	,20	1,00	,100	300	10	500	5,0
12	41 39 57	119 17 12	0,50	,15	0,10	,050	300	10 L	70	1,5
13	41 43 32	119 15 52	3,00	,10	0,05	,150	1000	30	200	7,0

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON

SAMPLE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
BADGER MOUNTIAN NW 7,5 MINUTE QUADRANGLE														
1	5 N	10 L	5	70	5 L	20	5 L	30	100 N	5 L	10 N	100 L	10 L	50 N
2	15	10 L	10	70	5 L	20	5 L	30	100 N	5 L	10 N	100 L	30	50 N
3	5 N	10 N	5 L	20 L	5 N	20 L	5 N	10 N	100 N	5 N	10 N	100 L	20	50 N
4	5 N	10 N	7	50	5 N	20 L	5 L	20	100 N	5	10 N	100	20	50 N
4	5 N	10 N	5	50	5 N	20 L	5 L	20	100 N	5	10 N	100	15	50 N
5	5 N	10	5 L	50	5 N	20 L	5 L	20	100 N	5 L	10 N	100 L	10 L	50 N
6	5 N	10 N	5 L	20 L	5 N	20 L	5 L	10 N	300	5 N	10 N	100 N	20	50 N
BADGER MOUNTIAN SE 7,5 MINUTE QUADRANGLE														
1	5 N	10 N	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 L	15	50 N
1	5 L	30	10	20 L	5 N	20 L	5 L	10 N	100 N	10	10 N	500	50	50 N
1	5 N	10 N	7	70	5 N	20 L	5 L	20	100 N	5 N	10 N	100 L	20	50 N
1	5 L	10 N	5 L	50	5 N	20 L	5 L	20	100 N	5 L	10 N	100 L	20	50 N
2	5 L	10 N	5 L	20 L	5 N	20 L	5 L	10 L	100 N	5 N	10 N	100 L	15	50 N
3	5 L	10 N	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 L	10	50 N
4	5 L	10 N	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 L	10	50 N
5	5 N	10 N	7	50	5 N	20 L	5 L	50	100 N	5 L	10 N	100 L	50	50 N
5	5 L	10 N	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 L	20	50 N
6	5 N	10 L	5 L	20	5 N	20 L	5 L	10	100 N	5 L	50	100 L	20	50 N
7	5 L	10 L	10	50	5 N	20 L	5 L	10	100 N	5	10 N	200	50	50 N
BLOWOUT MOUNTIAN 7,5 MINUTE QUADRANGLE														
1	5 L	10 N	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 L	30	50 N
2	5 N	10 L	5 L	20 L	5 N	20 L	5 L	10 L	100 N	5 N	10 N	100 L	10 L	50 N
3	5 L	10 N	5	20 L	5 N	20 L	5 L	10	100 N	7	10 N	500	50	50 N
4	5 L	10 N	5 L	20 L	5 N	20	5 L	50	100 N	5 N	20	100 L	50	50 N
5	5 N	10 L	10	50	5 N	20 N	5 L	50	100 N	5 N	10 N	100 L	30	50 N
6	5	10	20	20 L	5 N	20 L	5 L	10	100	5 L	10 N	100 L	300	50 N
6	5 N	15	10	150	5 N	20 L	5	20	100 N	5 L	10 N	100 L	50	50 N
7	5 N	10	10	50	5 N	20 L	5 L	10	100 N	5 L	10 N	100	100	50 N
7	5 N	10	5	50	5 N	20 L	5 L	10	100 N	5 L	10 N	100 L	20	50 N
7	20	10 L	5	50	5 N	20 L	5 L	15	100 N	5 L	10 N	100	30	50 N
8	5 N	10 L	5 L	50	5 N	20 L	5 L	10 L	100 N	5 N	10 N	100 L	30	50 N
8	5 N	10 L	10	50	5 N	20 L	5 L	50	100 N	5 N	70	100 L	20	50 N
9	5 L	10 L	10	70	5 N	20 L	5 L	50	100 N	5 L	15	100 L	20	50 N
10	5 L	10 L	10	70	5 N	20 L	5 L	100	100 N	5 L	20	100 L	30	50 N
11	5 N	10 L	5	50	5 N	20 L	5 L	15	100 N	5 L	10 N	100	30	50 N
12	5 N	10 L	7	30	5 N	20 L	5	10 L	100 N	5 L	10 N	100 L	20	50 N
13	5 L	10 L	15	100	5 N	20 L	5 L	70	100 N	5 L	10	100 L	30	50 N

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON

SAMPLE	S-Y	S-ZN	S-ZR	AA-AU	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	CM-W	AC-TH	AC-U
					BADGER MOUNTIAN NW 7.5 MINUTE QUADRANGLE							
1	30	200 N	300	.05N	0.18	17.20	.4 L	1 L	30	20 L	0.0000 B	0.0000 B
2	20	200 N	300	.05N	0.06	18.70	.4	1	20	20 L	0.0000 B	0.0000 B
3	10	200 N	300	.05N	0.13	2.40	.4 L	1 L	10	20 L	0.0000 B	0.0000 B
4	20	200 N	200	.05N	0.12	5.40	.4 L	1 N	20	20 L	0.0000 B	0.0000 B
4	20	200 N	300	.05N	0.24	5.10	.4 L	1 N	10	20 L	0.0000 B	0.0000 B
5	30	200 N	300	.05N	0.32	16.10	.9	1 L	30	20 N	0.0000 B	0.0000 B
6	10 L	200 N	30	.05N	0.12	0.80	.7	1 L	10 L	20 N	0.0000 B	0.0000 B
					BADGER MOUNTIAN SE 7.5 MINUTE QUADRANGLE							
1	10 L	200 N	70	.05N	0.74	1.90	.4 L	1 N	50	20 L	0.0000 B	0.0000 B
1	15	200 N	100	.05N	0.25	9.00	.5	2	90	20 L	0.0000 B	0.0000 B
1	50	200 N	300	.05N	0.09	10.00	.4 L	1 N	20	20 L	0.0000 B	0.0000 B
1	20	200 N	300	.05N	0.12	7.50	.4 L	1 L	20	20 L	0.0000 B	0.0000 B
2	10 L	200 N	300	.05N	0.18	1.80	.4 L	1 N	10 L	20 L	0.0000 B	0.0000 B
3	10 L	200 N	200	.05N	0.21	1.90	.4 L	1 N	20	20 L	0.0000 B	0.0000 B
4	10 L	200 N	70	.05N	0.12	1.10	.4 L	1 N	10	20 L	0.0000 B	0.0000 B
5	30	200 N	300	.05N	0.18	65.00	.9	1 N	20	20 L	0.0000 B	0.0000 B
5	20	200 N	200	.05N	0.12	8.00	.4 L	1 N	10	20 L	0.0000 B	0.0000 B
6	10	200 N	100	.05L	0.17	3.20	.4 L	1 L	60	20 L	0.0000 B	0.0000 B
7	10	200 N	70		0.21	14.10	.4	1 L	10 L	20 N	8.6400	2.7300
					BLOWOUT MOUNTIAN 7.5 MINUTE QUADRANGLE							
1	10 L	200 N	20	.05N	0.55	2.00	.4 L	1 N	10	20 L	0.0000 B	0.0000 B
2	10 L	200 N	10 L	.05N	0.06	1.80	.4 L	1	20	20 L	0.0000 B	0.0000 B
3	10	200 N	70	.05N	0.18	8.10	.5	1	10	20 L	0.0000 B	0.0000 B
4	50	200 N	1000	.05N	0.18	14.50	.4 L	1	10	20 L	0.0000 B	0.0000 B
5	100	200 N	1000	.05N	0.13	11.00	.4 L	1	50	20 L	0.0000 B	0.0000 B
6	50	200 N	1000 G	.05N	0.64	50.00	3.4	5	150	20 N	23.8000	12.0200
6	150	200 N	1000 G	.05N	0.26	40.00	1.5	1 L	20	20 N	0.0000 B	0.0000 B
7	50	200 N	100	.05N	0.22	7.00	.7	1 L	20	20 N	0.0000 B	0.0000 B
7	50	200 N	70	.05N	0.34	5.40	1.0	1 L	10	20 N	0.0000 B	0.0000 B
7	100	200 N	1000	.05N	0.15	31.00	2.0	1 L	20	20 N	0.0000 B	0.0000 B
8	30	200 N	50	.05N	1.02	5.00	1.0	25	10	20 N	0.0000 B	0.0000 B
8	30	200 N	300	.05N	0.40	11.40	1.5	1 L	10	20 N	0.0000 B	0.0000 B
9	100	200	500	.05N	0.21	42.00	1.0	1 L	30	20 N	0.0000 B	0.0000 B
10	200	200	1000 G	.05N	0.18	41.00	1.0	4	50	20 N	0.0000 B	0.0000 B
11	50	200 N	500	.05L	0.34	13.00	.4 L	4	40	20 L	0.0000 B	0.0000 B
12	15	200 N	200	.05L	0.14	3.80	.4 L	1 L	10	20 L	0.0000 B	0.0000 B
13	300	200 L	1000 G	.05N	0.10	52.00	.6	1 L	20	20 N	0.0000 B	0.0000 B

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE
14	41 43 14	119 15 56	2,00	,03	0,05	,070	500	50	50	10,0
15	41 42 38	119 16 45	2,00	,20	0,30	,070	200	30	50	5,0
16	41 43 45	119 16 45	2,00	,10	0,10	,100	500	30	100	5,0
17	41 38 8	119 15 3	1,50	,70	1,00	,200	300	10	700	3,0
18	41 39 10	119 16 53	5,00	,70	1,00	,500	1000	30	1500	2,0
19	41 41 42	119 18 55	2,00	1,00	0,50	,300	500	30	500	2,0
20	41 40 23	119 22 19	3,00	1,00	1,00	,500	1000	20	1000	2,0
		BALD MOUNTIAN 7.5 MINUTE QUADRANGLE								
1	41 50 39	119 34 29	10,00	1,00	2,00	1,000 G	5000	10	2000	1,0
2	41 50 7	119 37 5	7,00	,50	1,00	1,000	1500	20	2000	1,5
3	41 49 54	119 37 14	5,00	1,50	1,00	1,000	2000	10	2000	1,5
4	41 49 49	119 37 0	5,00	,30	1,00	1,000	2000	10	2000	1,5
5	41 49 32	119 36 47	5,00	1,00	1,00	1,000	2000	10	2000	1,5
6	41 49 40	119 36 34	7,00	,30	1,50	1,000	1000	10	3000	1,0
7	41 49 22	119 36 23	7,00	,70	1,00	1,000	2000	10	3000	1,0
8	41 48 38	119 32 35	0,20	,07	0,15	,050	200	10 L	1000	2,0
9	41 49 26	119 31 41	0,30	,05	0,15	,100	700	10 L	700	1,0
10	41 50 16	119 32 23	0,20	,05	0,10	,050	100	10 L	700	1,0 L
11	41 51 6	119 35 17	10,00	3,00	3,00	,500	1500	10	500	1,0 N
12	41 50 26	119 36 0	0,50	,20	0,20	,010	700	10 L	300	1,0
13	41 50 0	119 35 53	7,00	,70	3,00	1,000	1500	15	2000	1,5
14	41 50 11	119 37 5	0,20	,05	0,10	,050	200	10	150	1,0
15	41 48 28	119 34 18	0,07	,02 L	0,05 L	,200	100	10 L	700	1,0 L
15	41 48 28	119 34 18	5,00	,05	0,50	,070	5000	20	1500	7,0
15	41 48 28	119 34 18	0,50	,02 L	0,10	,010	200	10	300	10,0
15	41 48 28	119 34 18	5,00	,70	1,00	,500	200	10	1000	2,0
15	41 48 28	119 34 18	0,50	,10	0,15	,100	500	15	300	2,0
16	41 48 33	119 34 23	1,00	,05	0,20	,010	200	15	200	5,0
17	41 48 26	119 34 40	2,00	,50	0,70	,500	1000	15	700	3,0
18	41 48 28	119 35 20	5,00	,20	0,20	,500	100	15	1000	2,0
18	41 48 28	119 35 20	15,00	,10	2,00	,200	1000	30	1000	5,0
18	41 48 28	119 35 20	5,00	1,00	0,50	,500	200	10	500	1,5
18	41 48 28	119 35 20	5,00	,20	0,30	,300	150	10	1500	1,0
19	41 48 29	119 36 21	10,00	1,00	1,00	,700	1000	10	2000	1,0
19	41 48 29	119 36 21	0,10	,02 L	0,10	,500	20	10 L	2000	1,0 L
20	41 49 32	119 37 58	3,00	,30	0,50	,500	700	10	1000	2,0
21	41 49 18	119 36 55	3,00	,70	0,70	,500	1000	10	1000	2,0
22	41 48 51	119 36 35	2,00	,30	0,10	,300	150	10 L	1000	1,5
23	41 48 43	119 36 29	0,50	,05	0,07	,300	50	10 L	1000	1,0
24	41 48 35	119 36 33	0,50	,05	0,10	,700	50	10 L	1500	1,0

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
14	5 L	10 L	7	100	5 N	20 L	5 L	70	100 N	5 L	15	100 L	20	50 N
15	5 L	10 L	5	50	5 N	20 L	5 L	70	100 N	5 L	10 L	100 L	20	50 N
16	5 L	10 L	7	70	5 N	20 L	5 L	20	100 N	5 L	10 N	100 L	20	50 N
17	5 L	10 L	5	50	5 N	20 L	5 L	20	100 N	7	10 N	500	50	50 N
18	5 L	10 L	10	50	5 N	20 L	5 L	20	100 N	10	10 N	200	100	50 N
19	10	10 L	15	50	10	20 L	20	20	100 N	5	10 N	100	50	50 N
20	10	30	15	30	5	20 L	20	20	100 N	15	10 N	300	50	50 N
					BALD MOUNTIAN 7.5 MINUTE QUADRANGLE									
1	70	20	10	100	5 N	20 L	20	20	100 N	30	10 N	500	100	50 N
2	5 L	10	10	100	5	20 L	5 L	20	100 N	20	10 N	500	30	50 N
3	7	10 L	5	100	5 N	20 L	5 L	20	100 N	20	10 N	700	70	50 N
4	7	10 L	10	100	5 N	20 L	5 L	100	100 N	20	10 N	700	70	50 N
5	7	10 L	5	100	5 N	20 L	5 L	20	100 N	20	10 N	700	70	50 N
6	10	10 L	10	50	5 N	20 L	5	20	100 N	20	10 N	700	100	50 N
7	5	10 L	5 L	50	5 N	20 L	5 L	20	100 N	20	10 N	500	20	50 N
8	5 N	10 N	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 N	15	50 N
9	5 N	10 N	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 N	10	50 N
10	5 N	200	15	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 N	10	50 N
11	70	10 N	50	20 N	5 N	20 L	200	10 L	100 N	50	10 N	500	200	50 N
12	5 N	10 L	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 N	15	50 N
13	10	10 N	10	70	5 N	20 L	5 L	15	100 N	20	10 N	100 N	50	50 N
14	5 L	10 N	5	20	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 N	20	50 N
15	5 N	10 L	5	20 L	5 N	20 L	5 L	10 L	100 N	10	10 N	200	50	50 N
15	5 N	10 L	7	50	5 N	20 L	5	10	1000	5	10 N	500	200	70
15	5 N	10 L	5 L	20 L	5 N	20 L	5 L	10 L	500	5 N	10 N	100 L	100	50 N
15	5	10 L	10	100	5 N	20 L	5 L	20	100 L	20	10 N	100	50	50 N
15	5 N	10	7	50	5 N	20 L	5 L	10 L	300	5	10 N	100 L	20	50 N
16	5 N	10	5 L	50	5 N	20 L	5 L	10 L	500	5 N	10 N	100 L	50	50 N
17	5	20	7	50	5 N	20 L	5 L	10	300	10	10 N	100 L	50	50 N
18	5 L	20	10	100	5 N	20 L	5 L	20	100 N	20	10 N	100	70	50 N
18	5 L	20	10	50	5 N	20 L	5 L	15	100 N	10	10 N	100	200	50 N
18	5 L	15	5	70	5 N	20 L	5 L	10 L	100 N	20	10 N	100	50	50 N
18	5 N	15	5	70	5 N	20 L	5 L	10	100 N	7	10 N	100	50	50 N
19	10	15	5	70	5 N	20 L	5 L	20	100 N	20	10 N	500	50	50 N
19	5 N	10	10	20 L	5 N	20 L	5 L	10 L	100 N	20	10 N	1000	70	50 N
20	10	10 L	5	70	5 N	20 L	5 L	20	100 N	20	10 N	300	50	50 N
21	10	10 L	5	70	5 N	20 L	5 L	20	100 N	20	10 N	300	50	50 N
22	5 L	10 L	5	50	5 N	20 L	5 L	20	100 N	10	10 N	200	30	50 N
23	5 L	10 L	10	50	5 N	20 L	5 L	20	100 N	15	10 N	300	50	50 N
24	5 L	20	10	50	5 N	20 L	5 L	20	100 N	20	10 N	300	50	50 N

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-Y	S-ZN	S-ZR	AA-AU INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	CM-W	AC-TH	AC-U
14	200	200	1000	.05N 0.15	42.00	1.2	1 L	40	20 N	0.0000 B	0.0000 B
15	50	200 L	300	.05N 0.10	29.40	1.8	1	40	20 N	0.0000 B	0.0000 B
16	70	200 N	300	.05N 0.09	19.90	1.3	1 L	40	20 N	0.0000 B	0.0000 B
17	20	200 N	100	.05N 0.06	21.50	1.0	1 L	10	20 N	11.4400	5.0500
18	20	200 N	150	.05N 0.30	14.20	.4	5	10	20 N	8.2000	5.0900
19	20	200 N	200	.05N 0.06	16.60	.4 N	1 L	10	20 N	14.2700	4.7600
20	30	200 N	300	.05L 0.06	15.80	.5	1	20	20 L	13.8200	4.7900
				BALD MOUNTIAN 7.5 MINUTE QUADRANGLE							
1	200	200 N	500	.05N 11.00	77.00	5.0	1 L	10	20 N	0.0000 B	0.0000 B
2	100	200 N	300	.05N 0.50	48.00	.9	1 L	20	20 N	0.0000 B	0.0000 B
3	70	200 N	300	.05N 0.50	62.00	2.1	1 L	10 L	20 N	0.0000 B	0.0000 B
4	70	200 N	300	.05N 0.30	60.00	2.5	1 L	40	20 N	0.0000 B	0.0000 B
5	70	200 N	300	.05N 0.20	30.00	1.7	1 L	30	20 N	0.0000 B	0.0000 B
6	70	200 N	300	.05N 0.30	30.00	.9	1 L	20	20 N	0.0000 B	0.0000 B
7	70	200 N	300	.05N 0.90	34.00	.8	1 L	20	20 N	0.0000 B	0.0000 B
8	10 L	200 N	50	.05N 0.12	3.90	1.4	2	10	20 N	0.0000 B	0.0000 B
9	10 L	200 N	50	.05N 2.05	1.80	.8	1	10	20 N	0.0000 B	0.0000 B
10	10 L	200 N	10 L	.05N 0.06	3.90	.4 N	120	10	20 N	0.0000 B	0.0000 B
11	50	200 N	100	.05N 0.06 N	25.50	6.8	80	10	20 N	0.0000 B	0.0000 B
12	10 N	200 N	20	.05N 0.06	2.40	.4 N	60	10	20 N	0.0000 B	0.0000 B
13	100	200 N	500	.05N 0.37	28.20	1.8	30	10	20 N	0.0000 B	0.0000 B
14	10 L	200 N	20	.05N 0.37	1.70	.6	100	10	20 N	0.0000 B	0.0000 B
15	10 L	200 N	100	.05N 2.40	1.00	1.2	10	20	20 N	0.0000 B	0.0000 B
15	20	200 L	150	.05N 4.10	5.80	2.5	1 N	120	20 N	0.0000 B	2.1300
15	10 L	200 N	20	.05N 15.50	0.70	.5	1 N	30	20 N	2.9900	0.0000 B
15	50	200 N	300	.05N 4.40	26.50	2.5	1 N	200	20 N	0.0000 B	0.0000 B
15	10 L	200 N	70	.05N 18.00	4.20	.9	1 N	100	20 N	0.0000 B	0.0000 B
16	10 L	200 N	30	.05N 4.40	1.40	.8	1 L	100	20 N	0.0000 B	0.3600
17	20	200 N	200	.05N 95.00 G	20.00	2.4	2	30	20 N	0.0000 B	0.0000 B
18	50	200 N	300	.05N 11.20	8.80	2.5	20	10	20 N	0.0000 B	0.0000 B
18	50	300	150	.05N 42.00	146.00	6.6	1	100	20 N	0.0000 B	21.8500
18	30	200 L	300	.05N 95.00 G	22.60	2.7	1 N	10	20 N	0.0000 B	0.0000 B
18	100	200	200	.05N 7.00	8.50	1.2	2	10	20 N	0.0000 B	0.0000 B
19	70	200 N	500	.05N 5.00	22.80	1.8	4	10	20 N	0.0000 B	0.0000 B
19	20	200 N	200	.05N 5.40	1.10	.4 N	3	10	20 N	0.0000 B	0.0000 B
20	70	200 N	200	.05N 0.14	106.00	.5	1 L	20	20 N	0.0000 B	0.0000 B
21	70	200 L	200	.05N 0.07	50.00	.8	1 N	10	20 N	0.0000 B	0.0000 B
22	20	200 N	300	.05N 5.60	7.60	1.2	1 L	30	20 N	0.0000 B	0.0000 B
23	20	200 N	200	.05N 5.60	1.90	1.0	1 L	20	20 N	0.0000 B	0.0000 B
24	50	200 N	300	.05N 35.00	1.60	.8	1 L	20	20 N	0.0000 B	0.0000 B

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE
25	41 48 30	119 36 25	0.07	.02 L	0.10	.300	10 N	10 L	1000	1.0 L
25	41 48 30	119 36 25	0.05	.02 L	0.10	.500	10 N	10 L	1500	1.0 L
25	41 48 30	119 36 25	0.05	.02 L	0.10	.500	10 N	10 L	1500	1.0 L
26	41 48 25	119 36 29	1.00	.02 L	0.07	.500	10 L	10 L	1000	1.0 L
27	41 48 25	119 36 24	1.00	.02 L	0.05	.300	10 L	10 L	1500	1.0 L
28	41 48 29	119 36 11	5.00	.07	0.07	.500	20	10 L	300	1.0
29	41 50 33	119 36 50	5.00	.50	0.70	.500	1000	20	1000	1.5
30	41 50 35	119 37 6	3.00	.50	0.70	.300	1500	30	1000	1.5
31	41 48 30	119 36 17	5.00	.03	0.20	1.000	200	20	5000	1.0
32	41 50 43	119 37 5	5.00	.20	0.50	.500	700	10	1500	1.5
33	41 50 49	119 37 9	3.00	.20	0.20	.300	1500	10	1000	1.5
34	41 48 21	119 35 56	7.00	.70	0.70	1.000	500	10	1500	1.5
35	41 48 30	119 35 38	10.00	1.00	1.00	1.000	1500	20	1500	1.5
36	41 48 45	119 37 6	3.00	.30	0.70	.500	500	15	1500	1.0
37	41 48 35	119 35 21	5.00	1.00	0.70	.500	700	20	1500	1.5
37	41 48 35	119 35 21	5.00	1.00	1.00	.700	1500	20	2000	1.5
38	41 48 29	119 34 37	5.00	.30	0.70	.500	1000	20	1500	2.0
39	41 48 25	119 34 35	7.00	1.00	1.00	.500	2000	15	1500	2.0
40	41 48 17	119 34 46	5.00	.70	0.50	.500	700	20	1000	2.0
41	41 48 26	119 34 51	5.00	1.00	1.00	.700	1000	30	1000	2.0
42	41 48 24	119 34 26	7.00	.70	0.50	.500	500	20	500	2.0
42	41 48 24	119 34 26	5.00	.70	1.00	.700	500	20	1500	2.0
		BIG SPRING BUTTE 15 MINUTE QUADRANGLE								
1	41 50 20	119 4 36	0.05 L	.02 L	0.15	.030	100	10 L	70	1.0 L
1	41 50 20	119 4 36	0.05	.05	0.10	.070	1000	10 L	100	1.5
2	41 50 7	119 4 31	2.00	.05	0.10	.100	700	30	150	3.0
3	41 53 7	119 4 59	5.00	.03	0.10	.020	500	10 L	100	10.0
4	41 46 54	119 5 48	0.10	.05	0.05	.002 L	1000	10 L	70	10.0
4	41 46 54	119 5 48	0.20	.05	0.05	.010	300	10 L	70	10.0
4	41 46 54	119 5 48	0.30	.07	0.07	.005	1000	10 L	150	10.0
4	41 46 54	119 5 48	1.00	.70	0.70	.020	100	10	50	10.0
4	41 46 54	119 5 48	2.00	.50	0.20	.200	1000	100	50	7.0
4	41 46 54	119 5 48	0.10	.10	0.20	.015	20	10 L	20 L	10.0
4	41 46 54	119 5 48	1.00	1.00	7.00	.100	50	10 L	50	5.0
4	41 46 54	119 5 48	0.20	.10	0.50	.005	700	10	100	20.0
5	41 46 55	119 5 56	1.00	.15	0.50	.010	1000	10 L	300	20.0
5	41 46 55	119 5 56	0.30	.10	0.30	.020	100	10 L	100	50.0
6	41 46 58	119 5 53	2.00	.70	1.00	.100	500	10	50	20.0
6	41 46 58	119 5 53	2.00	.70	0.50	.200	1000	100	20 L	10.0
6	41 46 58	119 5 53	0.10	.70	0.70	.050	500	10	20 L	15.0

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
25	5 L	10 L	7	50	5 N	20 L	5 L	20	100 N	15	10 N	500	100	50 N
25	5 L	10 L	7	50	5 N	20 L	5 L	20	100 N	20	10 N	500	30	50 N
25	5 L	10	10	50	5 N	20 L	5 L	30	100 N	30	10 N	500	100	50 N
26	5 L	10 L	20	50	5 N	20 L	5 L	10	100 N	15	10 N	200	100	50 N
27	5 L	10 L	10	50	5 N	20 L	5 L	15	100 N	20	10 N	300	100	50 N
28	5 L	10	5 L	50	5 N	20 L	5 L	10	100 N	20	10 N	200	70	50 N
29	5 L	10 L	7	70	5 N	20 L	5 L	20	100 N	20	10 N	300	20	50 N
30	5 L	10 L	5	70	5 N	20 L	5 L	20	100 N	20	10 N	500	20	50 N
31	5	10	10	70	5 N	20 L	5 L	20	700	100	10 N	5000 G	100	50
32	5 L	10 L	10	70	5 N	20 L	5 L	20	100 N	20	10 N	300	30	50 N
33	5 L	10 L	5 L	70	5 N	20 L	5 L	20	100 N	10	10 N	300	20	50 N
34	20	20	20	70	5 N	20 L	20	20	100 N	30	10 N	300	100	50 N
35	20	20	15	70	5 N	20 L	15	20	100 N	30	10 N	300	100	50 N
36	5 L	10 L	10	70	5 N	20 L	5 L	20	100 N	15	10 N	300	70	50 N
37	20	20	15	50	5 N	20 L	20	20	100 L	20	10 N	300	100	50 N
37	20	20	15	70	5 N	20 L	20	30	100 L	20	10 N	300	100	50 N
38	5	10	5	50	5 N	20 L	5 L	20	150	20	10 N	300	70	50 N
39	20	30	20	50	5 N	20 L	20	50	100 N	20	10 N	200	100	50 N
40	10	30	20	70	5 N	20 L	20	20	100	30	10 N	200	100	50 N
41	20	30	15	70	5 N	20 L	20	20	500	30	10 N	200	100	50 N
42	20	30	20	70	5 N	20 L	15	20	100 N	30	10 N	200	150	50 N
42	7	15	5	70	5 N	20 L	5 L	20	500	30	10 N	200	100	50 L

BIG SPRING BUTTE 15 MINUTE QUADRANGLE

1	5 L	10 L	5 L	20	5 N	20 L	5 L	10 L	100 N	5 N	10 N	100 L	10 L	50 N
1	5 L	10 L	5 L	50	5 N	20 L	5 L	10 L	100 N	5 N	10 N	100 L	50	50 N
2	5 L	10	5	70	5 N	20 L	5 L	20	100 N	10	10 N	100 L	10 L	50 N
3	5 L	10	20	20 L	5 N	20 L	5 N	10 L	100 N	5 L	10 N	100 L	70	50 N
4	5 L	10 L	5 L	50	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 N	20	50 N
4	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 N	15	50 N
4	5 L	10 L	5 L	20 L	5 L	20 L	5 L	10 N	100 N	5 L	10 N	100 L	20	50 N
4	5 L	30	10	20 L	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 L	50	50 N
4	5 L	10 L	5 L	100	10	20 L	5 L	30	100 N	10	10 N	100 N	20	50 N
4	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 L	100 N	5	10 N	100 L	50	50 N
4	5 L	10	20	20 L	10	20 L	5	10 L	100 N	5	10 N	300	200	50 N
4	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 N	30	50 N
5	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 L	100 N	5 L	10 N	100 L	30	50 N
5	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 L	20	50 N
6	5 L	10 L	10	20 L	5 N	20 L	5 L	20	100	7	10 N	100 L	50	50 N
6	5 L	10 L	5	70	10	20 L	5 L	30	100 N	10	10 N	100 N	30	50 N
6	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 L	100 N	5	10 N	100 L	50	50 N

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-Y	S-ZN	S-ZR	AA-AU	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	CM-W	AC-TH	AC-U
25	10	200 N	300	.05N	3,80	1,20	1,0	1 L	50	20 N	0,0000 B	0,0000 B
25	30	200 N	200	.05N	100,00 G	1,20	,9	4	40	20 N	0,0000 B	0,0000 B
25	30	200 N	200	.05N	10,00	1,40	,6	3	40	20 N	0,0000 B	0,0000 B
26	50	200 N	200	.05N	3,50	2,90	1,0	5	50	20 N	0,0000 B	0,0000 B
27	50	200 N	200	.05N	100,00 G	1,90	1,1	4	30	20 N	0,0000 B	0,0000 B
28	70	200 N	200	.05N	3,50	9,90	2,0	10	100	20 N	0,0000 B	0,0000 B
29	70	200 N	300	.05N	0,17	18,80	1,1	1 N	10	20 N	0,0000 B	0,0000 B
30	70	200 L	300	.05N	0,18	57,00	1,5	1 L	10	20 N	0,0000 B	0,0000 B
31	100	200 N	300	.05N	20,00	22,00	1,7	800	600	40	0,0000 B	0,0000 B
32	70	200 N	300	.05N	0,30	59,00	1,6	1 L	10	20 N	0,0000 B	0,0000 B
33	50	200 N	300	.05N	0,10	54,00	1,9	1 L	10	20 N	0,0000 B	0,0000 B
34	100	200	300	.05N	80,00	125,00	1,4	2	30	20 N	0,0000 B	0,0000 B
35	100	200 L	300	.05N	8,80	71,00	1,6	2	40	20 N	0,0000 B	0,0000 B
36	30	200 N	200	.05N	0,07	23,00	1,5	1 N	10	20 N	0,0000 B	0,0000 B
37	70	200 L	300	.05N	16,00	64,00	1,6	35	40	20 N	0,0000 B	0,0000 B
37	100	200	200	.05N	50,00	76,00	1,5	25	120	20 N	0,0000 B	0,0000 B
38	50	200	200	.05N	26,00	62,00	1,5	60	120	20 N	0,0000 B	0,0000 B
39	50	200 N	300	.05N	15,00	29,90	1,4	1	30	20 N	0,0000 B	0,0000 B
40	50	200 N	500	.05N	36,00	99,60	1,6	60	120	20 N	0,0000 B	0,0000 B
41	70	200 L	300	.05N	37,00	25,00	1,5	220	80	20 N	0,0000 B	0,0000 B
42	50	200 N	200	.05N	32,00	24,60	1,0	5	40	20 N	0,0000 B	0,0000 B
42	70	200 N	200	.05N	100,00 G	53,00	1,4	200	100	20 N	0,0000 B	0,0000 B

BIG SPRING BUTTE 15 MINUTE QUADRANGLE

1	10 L	200 N	50	.05N	0,20	1,60	,4 L	1 L	20	20 L	3,2000	0,0000 B
1	10	200 N	70	.05N	0,37	12,20	,4 L	1 L	50	20 L	0,0000 B	1,1900
2	50	200 N	500	.05N	0,25	3,00	,4 L	1	80	20 L	20,9800	6,6000
3	50	200	20	.05N	0,64	38,00	,4 L	10	180	20 L	0,0000 B	16,2500
4	10	200 N	10 L	.05L	0,04 L	11,20	,7	2	10	20 L	0,0000 B	112,5800
4	10 L	200 N	10 L	.05L	0,04 L	21,00	,6	2	10 L	20 L	0,0000 B	210,2400
4	10 L	200 N	20	.05L	0,04 L	35,00	1,1	3	10 L	20 L	48,9490	130,8200
4	10	1000	200	.008	0,04	152,00	,6	2	10 L	20 L	0,0000 B	8,4116
4	50	500	700	.05L	0,04 L	38,00	1,0	1	20	20 L	35,8220	21,6050
4	10	200 N	30	.008	0,04 L	31,00	,4 L	1	10 L	20 L	0,0000 B	8,9673
4	15	500	50	.008	0,05	61,00	2,6	1	30	20 L	0,0000 B	53,2530
4	10	200 N	20	.05L	0,05	23,80	,4 L	1	10 L	20 L	103,3200	297,5600
5	15	200 N	50	.05L	0,04 L	4,60	,4 L	4	30	20 L	70,4650	113,6900
5	10	200 N	50	.05L	0,04 L	5,70	,4 L	2	10	20 L	240,1900	400,3000
6	50	500	200	.05L	0,04 L	78,00	,9	80	20	20 L	115,2500	195,1500
6	50	500	700	.05L	0,04 L	30,00	2,3	1	10 L	20 L	58,6870	21,6200
6	50	200 L	100	.05L	0,04 L	28,00	,4 L	1	10 L	20 L	0,0000 B	139,6800

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE
6	41 46 58	119 5 53	2,00	,15	0,20	,200	1000	150	20 L	5,0
7	41 47 0	119 5 47	0,05	,05	0,20	,010	20	10 L	20 L	20,0
7	41 47 0	119 5 47	0,10	,05	0,30	,020	20	10 L	150	50,0
7	41 47 0	119 5 47	5,00	,70	0,30	,200	1000	150	20 L	20,0
7	41 47 0	119 5 47	0,20	,05	0,30	,007	30	10 L	20 L	20,0
7	41 47 0	119 5 47	0,30	,15	0,50	,020	30	10 L	20 L	20,0
7	41 47 0	119 5 47	5,00	,70	1,00	,300	1000	150	30	10,0
7	41 47 0	119 5 47	1,50	,50	1,00	,100	70	10 L	20 L	50,0
7	41 47 0	119 5 47	0,10	,05	0,50	,005	30	10 L	50	20,0
8	41 46 58	119 5 45	1,50	,50	1,00	,100	100	100	100	30,0
9	41 47 49	119 6 5	0,30	,20	1,00	,100	100	10 L	50	3,0
9	41 47 49	119 6 5	0,50	,07	1,00	,050	50	10 L	50	2,0
9	41 47 49	119 6 5	0,30	,07	1,00	,070	50	10 L	50	2,0
9	41 47 49	119 6 5	2,00	,70	1,50	,100	200	10 L	50	2,0
10	41 47 39	119 6 33	1,00	,50	1,50	,150	150	10	100	5,0
11	41 51 41	119 2 38	5,00	,70	3,00	,500	1000	100	300	1,5
11	41 51 41	119 2 38	1,00	,10	0,50	,200	100	10	500	2,0
12	41 45 59	119 7 14	2,00	,05	0,15	,200	500	50	50	3,0
12	41 45 59	119 7 14	1,50	,07	0,15	,100	300	50	50	2,0
13	41 46 56	119 5 40	0,10	,10	0,10	,020	20	10 L	20	10,0
13	41 46 56	119 5 40	1,00	,15	0,20	,100	100	10 L	70	20,0
13	41 46 56	119 5 40	0,10	,10	0,15	,030	100	10 L	50	20,0
14	41 52 41	119 1 55	0,50	,15	0,20	,100	500	20	200	3,0
15	41 48 50	119 13 45	1,50	,10	0,05	,150	1000	50	200	3,0
16	41 49 6	119 13 40	0,05	,05	0,20	,020	300	10	150	1,0
17	41 49 4	119 12 38	2,00	,10	0,10	,200	1000	50	500	3,0
18	41 48 11	119 9 10	0,05	,02 L	0,10	,050	50	10 L	100	1,0
19	41 53 13	119 7 58	0,50	,05	0,05	,050	70	50	100	3,0
19	41 53 13	119 7 58	1,00	,05	0,07	,070	70	30	100	3,0
19	41 53 13	119 7 58	0,50	,02	0,05	,100	70	30	100	3,0
19	41 53 13	119 7 58	1,00	,05	0,07	,100	50	30	200	3,0
19	41 53 13	119 7 58	1,00	,10	0,07	,070	100	30	70	3,0
19	41 53 13	119 7 58	1,00	,10	0,07	,050	70	50	100	3,0
20	41 53 12	119 14 15	5,00	,50	10,00	,300	200	30	300	2,0
20	41 53 12	119 14 15	5,00	,50	2,00	,200	150	10	300	1,5
20	41 53 12	119 14 15	20,00	,20	0,50	,200	500	10 L	700	5,0
21	41 49 15	119 0 36	0,10	,02	0,05 L	,010	20	10	200	1,0 L
22	41 53 11	119 7 50	1,00	,05	0,07	,150	150	20	70	2,0
23	41 48 29	119 0 30	0,50	,02	0,07	,020	20	10	50	2,0
24	41 49 52	119 0 23	2,00	,07	0,07	,200	300	30	200	2,0
24	41 48 52	119 0 23	0,05 L	,02	0,50	,020	20	10 L	150	1,0 L

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
6	5 L	10 L	5 L	100	10	20 L	5 L	30	100 N	10	10 N	100 N	100	50 N
7	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 L	100 N	5 L	10 N	100 N	30	50 N
7	5 L	10 L	20	20 L	20	20 L	5 L	10 L	100 N	5 L	10 N	100 L	50	50 N
7	5 L	10 L	5 L	100	20	20 L	5 L	30	100 N	20	10 N	100 N	70	50 N
7	5 L	10 L	5 L	20 L	20	20 L	5 L	10 N	100 N	5 L	10 N	100 N	20	50 N
7	5 L	10 L	5 L	20 L	20	20 L	5 L	10 N	100 N	5 L	10 N	100 L	70	50 N
7	5 L	10 L	10	100	70	20 L	5 L	30	100 N	15	10 N	100 N	200	50 N
7	5 L	10 L	5	20 L	70	20 L	5	10 L	100 N	5	10 N	100 L	200	50 N
7	5 L	10 L	5 L	20 L	20	20 L	5 L	10 L	100 N	5 L	10 N	100 L	10	50 N
8	5 L	10 L	15	20 L	500	20 L	5 L	10 L	100 N	7	10 N	200	100	50 N
9	5 L	10 L	5 L	20 L	15	20 L	5 L	10	100 N	5	10 N	100 L	70	50 N
9	5 L	10 L	5	20 L	150	20 L	5 L	10 L	100 N	5 L	10 N	100 N	50	50 N
9	5 L	10 L	5	20 L	50	20 L	5 L	10 L	100 N	5	10 N	100 N	70	50 N
9	5 L	10 L	5 L	50	5 N	20 L	5 L	20	100 N	5	10 N	100 N	50	50 N
10	5 L	10 L	5	50	5 N	20 L	5 L	20	100 N	5	10 N	100	200	50 N
11	10	10	20	50	5 N	20 L	15	20	100 N	20	10 N	200	100	50 N
11	15	20	30	20	5 N	20 L	5	10	100 N	7	10 N	200	200	50 N
12	5 N	10 L	5 L	50	5 N	20 L	5 L	20	100 N	5	10 N	100 L	10 L	50 N
12	5 N	10 L	5 L	50	5 N	20 L	5 L	30	100 N	5	10 N	100 L	10	50 N
13	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 L	100 N	5 L	10 N	100 L	30	50 N
13	5 L	10 N	5	20 L	500	20 L	5 L	10 L	100 N	5	10 N	100	50	50 N
13	5 L	10 N	5 L	20 L	10	20 L	5 L	10 N	100 N	5 L	10 N	100	20	50 N
14	5 L	10 N	5 L	50	5 N	20 L	5 L	10	100 N	5 N	10 N	100 L	10	50 N
15	5 L	10 N	5 L	70	5 N	20 L	5 L	20	100 N	7	10 N	100 N	20	50 N
16	5 L	10 N	5 L	50	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 N	20	50 N
17	5 L	10 N	5 L	100	5 N	20 L	5 L	100	100 N	10	10 N	100 L	30	50 N
18	5 L	10 L	5 L	100	5 N	20 L	5 L	10 L	100 N	5 L	10 N	100 N	10	50 N
19	5 L	10 N	5 L	70	5 L	20 L	5 L	20	100 N	5	10 N	100 L	10	50 N
19	5 L	10 N	5 L	50	5 L	20 L	5 L	20	100 N	5	10 N	100 L	30	50 N
19	5 L	10 N	5 L	50	5 L	20 L	5 L	10	100 N	5	10 N	100 L	10	50 N
19	5 L	10 N	5 L	70	150	20 L	5 L	20	100 N	7	10 N	100 L	50	50 N
19	5 L	10 N	5	70	5 L	20 L	5 L	30	100 N	5	10	100 L	20	50 N
19	5 L	10 N	7	50	5 N	20 L	5 L	20	100 N	5	10 N	100 L	50	50 N
20	10	30	20	70	5 L	20 L	5	30	100 N	20	10 N	500	50	50 N
20	5	10	10	50	5 N	20 L	5	10	100 N	15	10 N	300	100	50 N
20	10	30	30	50	5 N	20 L	20	10	100 N	15	10	100	100	50 N
21	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 N	10	50 N
22	5 N	10 L	5	50	15	20 L	5	20	100 N	7	10 N	100 L	30	50 N
23	5 N	10 L	5	20	5 N	20 L	5	10 L	100	5 L	10 N	100 L	10	50 L
24	5 N	10 L	5 L	50	5	20 L	5	15	100 N	7	10 N	100 L	15	50 N
24	5 N	10 L	5 L	20	5 N	20 L	5	10 L	100 N	5 L	10 N	100 L	10	50 N

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-Y	S-ZN	S-ZR	AA-AU	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	CM-W	AC-TH	AC-U
6	100	200 N	500	.05L	0.04 L	17.30	.4	1	30	20 L	37.6310	13.2840
7	10 L	200 N	10 L	.05L	0.04 L	12.80	.4 L	1	10	20 L	0.0000 B	23.9710
7	10 L	200 N	70	.00B	0.04 L	51.00	.7	1	10	20 L	0.0000 B	199.8800
7	100	1000	1000	.05L	0.04 L	190.00	.8	2	20	20 L	43.5230	30.9030
7	10 L	200 N	20	.05L	0.04 L	13.80	.4 L	2	20	20 L	0.0000 B	91.2950
7	10	200 N	150	.00B	0.04 L	155.00	.7	1	10	20 L	0.0000 B	22.5230
7	100	1000	700	.05L	0.04 L	68.00	.4 L	3	30	20 L	60.3820	90.9520
7	100	700	200	.00B	0.04 L	100.00	.5	2	30	20 L	0.0000 B	144.8700
7	10 L	200 N	10 L	.05L	0.04 L	5.60	.8	3	30	20 L	0.0000 B	38.7000
8	20	200 N	20	.00B	0.04 L	73.00	2.3	40	160	20	0.0000 B	61.1140
9	20	200 N	70	.05L	0.04 L	16.10	.4 L	5	30	20 L	0.0000 B	109.4300
9	10	200 N	70	.05L	0.04 L	5.80	.4 L	20	30	20	0.0000 B	138.2900
9	10 L	200 N	50	.05L	0.04 L	4.40	.4 L	30	60	20 L	0.0000 B	91.5200
9	50	200 N	200	.05L	0.04 L	12.20	.4 L	1 L	10	20 L	27.6750	25.2170
10	50	200 N	200	.05L	0.09	13.00	.4 L	4	20	20 L	0.0000 B	84.1640
11	50	200 N	300	.05N	0.43	19.50	1.0	1	40	20 L	0.0000 B	0.0000 B
11	50	200 N	200	.05N	0.51	13.10	.5	1 L	20	20 L	0.0000 B	0.0000 B
12	50	200 N	300	.05N	0.11	17.40	.4 L	2	40	20 L	20.0600	8.5200
12	20	200 N	300	.05N	0.25	5.50	.4 L	1 L	60	20 L	18.0800	8.3500
13	50	200 N	20	.05N	0.07	60.00	1.2	1 L	10	20 N	0.0000 B	860.1000
13	10	200 L	70	.05N	0.20	52.00	.4 N	5	60	20 N	0.0000 B	32.2000
13	20	200 L	100	.05N	0.05	124.00	1.0	1	40	20 N	0.0000 B	56.6200
14	30	200 N	200	.05N	0.32	9.20	.4 L	2	20	20 L	0.0000 B	0.0000 B
15	50	200 N	300	.05N	0.12	7.30	.4 L	1	40	20 L	0.0000 B	0.0000 B
16	10 L	200 N	30	.05N	0.05	3.50	.4 L	1	10	20 L	0.0000 B	0.0000 B
17	100	200 N	300	.05N	0.25	14.00	.5	2	120	20 L	0.0000 B	0.0000 B
18	20	200 N	10 L	.05N	0.07	1.60	.4 L	2	10	20 L	0.0000 B	0.0000 B
19	70	200 N	200	.05N	0.24	8.70	.4 L	1	20	20 L	0.0000 B	0.0000 B
19	30	200 N	200	.05N	0.18	7.80	.4 L	2	10	20 L	0.0000 B	0.0000 B
19	30	200 N	300	.05N	0.32	8.80	.4 L	1	10	20 L	0.0000 B	0.0000 B
19	50	200 N	300	.05N	0.21	12.40	.4 L	3	20	20 L	0.0000 B	0.0000 B
19	50	200 N	150	.05N	0.12	19.00	.4 L	1	10 L	20 L	0.0000 B	0.0000 B
19	50	200 N	200	.05N	0.18	13.70	.4 L	2	10	20 L	0.0000 B	0.0000 B
20	70	200 N	200	.05N	0.24	26.60	1.8	1	10 L	20 L	0.0000 B	0.0000 B
20	50	200 L	200	.05N	0.34	27.60	1.0	1	10	20 L	0.0000 B	0.0000 B
20	100	200 L	200	.05N	0.55	52.00	.5	1	120	20 L	7.1000	2.4200
21	10 L	200 N	20	.05N	0.07	1.50	.4 L	2	20	20 L	0.0000 B	0.0000 B
22	50	200 N	200	.05L	0.12	125.00	.4 L	1	20	20 L	0.0000 B	0.0000 B
23	10	200 N	10	.05L	0.12	3.40	.4 L	20	80	20 L	0.0000 B	0.0000 B
24	50	200 N	300	.05L	0.16	16.70	.4 L	1 L	20	20 L	0.0000 B	0.0000 B
24	10 N	200 N	10 L	.05L	0.05	1.20	.4 L	1 L	10	20 L	0.0000 B	0.0000 B

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE
25	41 48 6	119 2 29	0,50	,10	0,20	,100	500	10 L	200	1,0
26	41 52 27	119 2 40	2,00	,30	0,50	,300	300	20	500	2,0
27	41 52 13	119 2 12	3,00	,20	1,00	,300	700	10	700	2,0
27	41 52 13	119 2 12	1,00	,20	0,30	,050	5000 G	10 L	1500	7,0
28	41 51 36	119 0 34	2,00	,20	0,15	,300	300	10	500	2,0
28	41 51 36	119 0 34	2,00	,30	0,20	,200	200	10	500	1,0
28	41 51 36	119 0 34	1,50	,10	0,15	,200	300	20	700	2,0
28	41 51 36	119 0 34	3,00	,50	0,20	,500	300	10	700	2,0
29	41 53 9	119 14 18	5,00	,70	1,50	,300	200	30	500	2,0
30	41 54 19	119 6 10	1,50	,05	0,10	,200	500	30	150	2,0
31	41 54 6	119 6 1	0,50	,05	0,10	,050	200	20	70	2,0
32	41 53 48	119 5 44	0,50	,02	0,10	,100	300	20	50	2,0
33	41 53 35	119 5 44	1,00	,02	0,10	,100	300	20	70	2,0
34	41 54 29	119 7 13	0,50	,05	0,10	,100	300	20	100	2,0
35	41 54 18	119 7 0	0,50	,05	0,05	,100	150	20	70	2,0
36	41 54 3	119 6 57	0,50	,05	0,10	,100	150	20	100	2,0
37	41 53 53	119 6 56	0,50	,05	0,10	,100	150	20	50	2,0
38	41 53 31	119 7 27	0,50	,10	0,10	,100	100	20	150	2,0
39	41 51 15	119 1 9	1,50	,10	0,70	,500	100	10	500	2,0
40	41 49 36	119 3 7	5,00	,30	0,50	,500	200	20	200	2,0
41	41 47 30	119 14 52	2,00	,10	0,15	,200	1000	30	100	2,0
42	41 48 16	119 14 3	2,00	,10	0,20	,200	1000	50	70	2,0
43	41 48 38	119 13 58	1,50	,50	0,07	,100	1000	70	70	3,0
44	41 45 33	119 14 15	1,00	,30	0,05	,150	100	20	100	2,0
45	41 53 12	119 14 43	1,00	,02	0,15	,100	500	20	70	2,0
46	41 53 41	119 14 54	1,00	,05	0,10	,070	1000	20	700	2,0
47	41 46 14	119 5 39	5,00	1,00	1,50	,500	1500	20	1000	2,0
48	41 46 14	119 5 40	5,00	1,00	2,00	,500	500	20	1000	2,0
49	41 46 15	119 5 43	2,00	,07	0,70	,200	500	10	1000	5,0
50	41 46 15	119 5 45	3,00	,10	1,00	,200	500	10	1000	3,0
51	41 54 3	119 2 13	5,00	,20	0,20	,500	300	10 L	500	1,5
52	41 53 7	119 2 31	5,00	1,50	3,00	,300	500	50	500	2,0
53	41 52 59	119 2 54	3,00	1,00	5,00	,300	1000	50	300	2,0
54	41 52 49	119 2 49	1,00	,10	0,10	,100	200	20	300	2,0
55	41 53 11	119 4 22	1,00	,20	0,50	,100	1000	30	200	2,0
56	41 53 2	119 3 57	1,00	,20	0,30	,100	200	30	200	2,0
57	41 52 18	119 3 23	0,70	,05	0,10	,100	150	30	150	2,0
58	41 53 44	119 8 21	2,00	,20	0,70	,300	200	10 L	1000	1,5

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S=CU	S=CR	S=CU	S=LA	S=MO	S=NB	S=NI	S=PB	S=SB	S=SC	S=SN	S=SR	S=V	S=W
25	5 N	15	7	20	5 N	20 L	5	10 L	100 N	5 L	10 N	100 L	50	50 N
26	5 L	30	5 N	70	20	20 L	7	10	100 N	15	10 N	200	100	50 N
27	5	10 L	10	50	5 L	20 L	5 L	10	100 N	5	10 N	200	70	50 N
27	10	10 L	200	50	200	20 L	50	20	100 N	5	10 N	300	500	50 N
28	5 L	10	15	70	5 N	20 L	10	30	100 N	15	10 N	100	50	50 N
28	7	10 L	10	70	5 N	20 L	5	20	100 N	10	10 N	100	50	50 N
28	5 L	10 L	10	70	5 N	20 L	5	20	100 N	10	10 N	100	50	50 N
28	7	10 L	10	70	20	20 L	10	20	100 N	20	10 N	300	200	50 N
29	10	10	15	70	5 N	20 L	10	20	100 N	20	10 N	500	150	50 N
30	5 L	10 L	5	100	5 L	20 L	5 L	20	100 N	5	10 N	100 L	10	50 N
31	5 L	10 L	5 L	50	5 N	20 L	5 L	10	100 N	5 L	10 N	100 L	10 L	50 N
32	5 L	10 L	5 L	50	5 N	20 L	5 L	10	100 N	5 L	10 N	100 L	10 L	50 N
33	5 L	10 L	5 L	70	5 N	20 L	5 L	10	100 N	5 L	10 N	100 L	10 L	50 N
34	5 L	10 L	5 L	70	15	20 L	5 L	15	100 N	5 L	10 N	100 L	10 L	50 N
35	5 L	10 L	5	70	5 N	20 L	5 L	20	100 N	5 L	10 N	100 L	10 L	50 N
36	5 L	10 L	5 L	100	5 N	20 L	5 L	20	100 N	5 L	10 N	100 L	10 L	50 N
37	5 L	10 L	5 L	100	5 N	20 L	5 L	10	100 N	5 L	10 N	100 L	10 L	50 N
38	5 L	10 L	5 L	100	5 N	20 L	5 L	20	100 N	5 L	10 N	100 L	10 L	50 N
39	5 L	10 L	5	70	5 N	20 L	5 L	20	100 N	7	10 N	700	50	50 N
40	10	10 L	20	70	5 N	20 L	7	20	100 N	15	10 N	200	100	50 N
41	5 L	10 L	5 L	100	5 N	20 L	5 L	30	100 N	15	10 N	100 L	20	50 N
42	5 L	10 L	5 L	150	10	20 L	5 L	30	100 N	15	10 N	100 L	20	50 N
43	5 L	10 L	5	100	5 L	20 L	5 L	50	100 N	10	10 N	100 L	20	50 N
44	5 L	10 L	5 L	70	5 N	20 L	5 L	15	100 N	7	10 N	100 L	10	50 N
45	5 L	10 L	5 L	100	5 N	20 L	5 L	20	100 N	5	10 N	100 L	10	50 N
46	5 L	10 L	10	150	5 N	20 L	5	20	100 N	5	10 N	100 L	20	50 N
47	20	50	20	50	7	20 L	5 L	20	100 N	15	10 N	300	100	50 N
48	5	20	20	50	5 L	20 L	5 L	20	100 N	15	10 N	300	70	50 N
49	5 L	10 L	5 L	100	5 L	20 L	5 L	20	100 N	5	10 N	100 L	20	50 N
50	5 L	10 L	5	100	5	20 L	5 L	30	100 N	5	10 N	100 L	20	50 N
51	5 L	10	15	150	5 N	20 L	5 L	20	100 N	20	10 N	200	50	50 N
52	10	20	20	70	5 N	20 L	20	20	100 N	15	10 N	200	70	50 N
53	7	20	20	100	10	20 L	20	20	100 N	15	10 N	200	70	50 N
54	5 L	10 L	5	50	5	20 L	5 L	20	100 N	5	10 N	100 L	20	50 N
55	5 L	10 L	7	70	5	20 L	5	10	100 N	5	10 N	100 L	50	50 N
56	5 L	10 L	5 L	100	5 L	20 L	5 L	15	100 N	5	10 N	100 L	30	50 N
57	5 L	10 L	5 L	100	5 L	20 L	5 L	50	100 N	5 L	10 N	100 L	30	50 N
58	5 L	10	7	50	5 N	20 L	5 L	10 L	100	10	10 N	150	70	50 N

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-Y	S-ZN	S-ZR	AA-AU	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	CM-W	AC-TH	AC-U
25	10	200 N	50	.05L	0.05	5.40	.4 L	1	60	20 L	0.0000 B	2.1700
26	30	200 N	200	.05N	0.37	26.00	.5	25	150	20 N	0.0000 B	38.5200
27	20	200 N	200	.05L	0.31	20.50	.5	1	40	20 L	0.0000 B	0.0000 B
27	70	200 N	200	.05L	0.37	178.00	4.4	3	200	20 L	0.0000 B	0.0000 B
28	50	200 N	200	.05N	0.02	12.40	.6	1	20	20 N	8.4300	3.8000
28	30	200 N	200	.05N	0.02 N	24.00	.4	2	20	20 N	12.0300	3.9500
28	50	200 N	200	.05N	0.04	15.80	.4	1	30	20 N	11.7800	4.6800
28	50	200 N	200	.05N	1.05	139.00	.5	1 L	90	20 N	7.5200	3.5400
29	70	200 N	200	.05N	0.11	72.00	1.3	1 N	10	20 N	10.7400	4.7300
30	50	200 N	300	.05L	0.04	14.80	.4 L	2	30	20 L	18.4500	6.0600
31	20	200 N	100	.05L	0.05	7.00	.4 L	1	10 L	20 L	13.0700	5.1800
32	100	200 N	200	.05L	0.07	13.00	.4 L	1 L	10 L	20 L	17.9200	8.1600
33	20	200 N	150	.05L	0.07	13.70	.4 L	1 L	10 L	20 L	15.5100	13.4100
34	30	200 N	200	.05L	0.05	13.00	.4 L	1 N	10 L	20 L	22.7900	6.5500
35	20	200 N	200	.05L	0.05	12.00	.4 L	1 L	10	20 L	18.1400	6.7000
36	50	200 N	200	.05L	0.05	11.40	.4 L	1 L	20	20 L	20.6500	5.9600
37	30	200 N	200	.05L	0.03	16.80	.4 L	1 N	20	20 L	17.2200	8.4100
38	30	200 N	200	.05L	0.04	12.60	.4 L	1 N	40	20 L	19.8200	8.1100
39	30	200 N	150	.05L	0.02 N	29.00	.9	1 L	40	20 L	0.0000 B	0.0000 B
40	50	200 N	200	.05L	0.03	18.00	.4	3	20	20 L	19.7400	3.3300
41	50	200 N	300	.05L	0.02 N	12.40	.4 L	1	20	20 L	0.0000 B	0.0000 B
42	100	200 N	500	.05L	0.02 N	0.60	.4 L	1	20	20 L	0.0000 B	0.0000 B
43	70	200 N	300	.05L	0.02 N	13.40	.4 L	1	10	20 L	0.0000 B	0.0000 B
44	30	200 N	300	.05L	0.03	3.10	.4 L	3	10	20 L	0.0000 B	0.0000 B
45	50	200 N	300	.05L	0.04	16.00	.4 L	3	10 L	20 L	0.0000 B	0.0000 B
46	30	200 N	300	.05L	0.02	20.00	.4	3	10 L	20 L	0.0000 B	0.0000 B
47	30	200 N	200	.05L	0.04 L	17.80	.4 L	2	20	20 L	8.2732	4.3821
48	20	200 N	200	.05L	0.04	13.60	.5	2	20	20 L	14.1930	6.3664
49	50	200 N	200	.05L	0.04 L	4.50	.4 L	1 L	10	20 L	23.1190	6.0744
50	50	200 N	300	.05L	0.04 L	2.50	.4 L	1 L	10	20 L	24.1940	6.0073
51	100	200 N	500	.05N	6.20	38.00	1.0	15	10	20 N	0.0000 B	0.0000 B
52	50	200 N	300	.05N	0.30	25.00	2.0	1 L	20	20 N	0.0000 B	0.0000 B
53	70	200 N	300	.05N	0.06	25.00	2.2	1 L	10	20 N	0.0000 B	0.0000 B
54	30	200 N	200	.05N	0.02 N	23.00	1.4	1 L	20	20 N	0.0000 B	0.0000 B
55	50	200 N	200	.05N	0.30	15.00	1.0	1 L	10	20 N	0.0000 B	0.0000 B
56	50	200 N	200	.05N	0.90	20.50	1.0	1 L	10	20 N	0.0000 B	0.0000 B
57	50	200 N	300	.05N	0.40	10.80	.9	1 L	10	20 N	0.0000 B	0.0000 B
58	20	200 L	200	.05N	1.70	22.20	1.2	3	20	20 N	0.0000 B	0.0000 B

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE
			CATNIP CANYON 7,5 MINUTE QUADRANGLE							
1	41 59 23	119 25 27	10,00	2,00	2,00	1,000	1000	10	2000	1,0
2	41 52 46	119 23 3	1,00	,10	0,07	,200	1000	50	150	3,0
			CALCUTTA LAKE 7,5 MINUTE QUADRANGLE							
1	41 50 30	119 39 12	0,30	,20	0,15	,200	1500	10	700	2,0
2	41 50 18	119 39 24	5,00	,07	0,07	,300	300	10	1500	3,0
3	41 50 30	119 38 45	1,50	,07	0,15	,050	200	30	150	2,0
4	41 50 13	119 38 39	7,00	,70	0,50	1,000	1000	30	2000	1,0
5	41 50 16	119 38 47	1,00	,05	0,05	,500	50	10	300	1,5
6	41 50 8	119 38 38	7,00	,70	0,50	1,000	500	20	1500	1,0
7	41 50 9	119 38 39	1,50	1,00	0,50	1,000	150	20	3000	1,0 L
8	41 50 4	119 38 43	3,00	,20	0,15	1,000	100	10	1000	1,0
9	41 49 46	119 38 53	7,00	1,00	0,70	1,000	3000	10 L	2000	1,5
10	41 49 53	119 38 45	7,00	1,00	1,50	1,000	2000	10 L	2000	1,5
11	41 49 54	119 38 38	5,00	,30	0,50	1,000	150	10	2000	1,5
12	41 49 58	119 38 38	7,00	,30	0,15	1,000	100	10	1500	1,5
13	41 49 58	119 38 34	5,00	,10	0,10	1,000	50	10	3000	1,5
14	41 49 59	119 38 35	7,00	,30	0,20	1,000	100	10	2000	1,5
15	41 50 0	119 38 36	5,00	,07	0,07	1,000	50	10	2000	1,0
16	41 50 2	119 38 32	5,00	1,00	0,10	,700	300	10	1000	1,5
17	41 50 2	119 38 26	3,00	,30	0,15	,700	30	10 L	3000	1,0
18	41 49 51	119 37 28	5,00	,50	1,00	1,000	2000	10	2000	1,5
19	41 50 12	119 37 50	7,00	2,00	2,00	1,000	2000	10	2000	1,0
20	41 49 9	119 38 36	5,00	,70	1,00	,500	1000	10	1000	1,0
21	41 48 51	119 38 44	7,00	1,00	1,00	,500	1500	10	1000	1,0
22	41 50 26	119 39 6	5,00	,50	0,20	,500	700	20	2000	2,0
22	41 50 26	119 39 6	10,00	,50	0,20	1,000	700	10	3000	2,0
23	41 50 8	119 40 5	5,00	,50	0,70	,300	500	10	1000	2,0
24	41 48 51	119 38 16	5,00	,20	0,70	,500	1500	10	1000	1,5
25	41-49 0	119 38 14	5,00	,30	0,70	,300	700	20	700	1,5
26	41 49 1	119 37 54	5,00	,50	0,20	,500	300	10	700	1,5
27	41 50 31	119 39 9	7,00	,50	1,00	,700	2000	20	2000	2,0
28	41 49 6	119 38 3	7,00	,50	0,30	,500	500	15	1000	1,5
29	41 49 10	119 38 11	5,00	,20	0,10	,500	500	10	700	2,0
30	41 49 22	119 38 3	5,00	,50	0,20	,500	300	10 L	1000	2,0
31	41 48 29	119 39 34	5,00	,50	1,00	1,000	1000	10	1000	1,5
32	41 49 27	119 38 8	5,00	,20	0,30	,500	1000	50	1000	7,0
33	41 50 8	119 39 11	3,00	,30	0,50	,300	300	10 L	1500	1,0
33	41 50 8	119 39 11	20,00	,20	0,50	,100	1500	10 L	700	5,0

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
					CATNIP CANYON 7,5 MINUTE QUADRANGLE									
1	30	30	30	70	5 N	20 N	50	20	100 N	20	10 N	700	200	50 N
2	5 L	10 L	5 L	100	5 N	20 L	5 L	10	100 N	7	10 N	100 L	10	50 N
					CALCUTTA LAKE 7,5 MINUTE QUADRANGLE									
1	10	10 N	10	70	5 N	20 L	5 L	10 L	100 N	5	10 N	100 L	50	50 N
2	5 L	10 L	20	50	5 N	20 L	5	20	300	10	10 N	200	100	50 N
3	5 L	10 L	10	50	5 N	20 L	5 L	15	100 N	5 N	10 N	100 N	20	50 N
4	10	15	15	50	5	20 L	5 L	20	100 N	20	10 N	200	100	50 N
5	5 L	10 L	5 L	50	5 N	20 L	5 L	15	100 N	15	10 N	200	30	50 N
6	10	30	20	50	10	20 L	15	20	100 N	20	10 N	300	100	50 N
7	5 L	10 L	5	50	5 N	20 L	5 L	20	100 N	20	10 N	100	30	50 N
8	5 L	10 L	15	50	5 N	20 L	5 L	20	100 N	20	10 N	500	50	50 N
9	10	10	10	50	5 N	20 L	5 L	20	100 N	20	10 N	500	100	50 N
10	15	10 L	20	70	10	20 L	5 L	20	100 N	20	10 N	500	100	50 N
11	5	10 L	10	70	20	20 L	5 L	20	100 N	15	10 N	200	30	50 N
12	5 L	10 L	15	70	5 L	20 L	5 L	30	100 N	20	10 N	100	50	50 N
13	5 L	10 L	5	50	5 L	20 L	5 L	20	100 N	15	10 N	100	20	50 N
14	5 L	10 L	15	50	5 N	20 L	5 L	20	100 N	20	10 N	200	20	50 N
15	5 L	10 L	20	100	5 N	20 L	5 L	30	100 N	20	10 N	200	70	50 N
16	5 L	10 L	5	100	5 N	20 L	5 L	20	100 N	20	10 N	100	30	50 N
17	5 L	10 L	5 L	70	5	20 L	5 L	10 L	100 N	20	10 N	100	30	50 N
18	7	10	5	100	5 L	20 L	5 L	20	100 N	20	10 N	700	70	50 N
19	20	10 L	10	50	5 N	20 L	5 L	20	100 N	20	10 N	700	70	50 N
20	10	10 L	15	50	5 N	20 L	5	20	100 N	15	10 N	500	100	50 N
21	10	10 L	15	50	5 N	20 L	5 L	10	100 N	20	10 N	300	100	50 N
22	10	10 L	20	50	5 N	20 L	5	20	200	20	10 N	100 L	100	50 N
22	5 L	10 L	20	50	5 N	20 L	5 L	20	200	20	10 N	100	200	50 N
23	15	10 L	15	50	5 N	20 L	5	20	100 N	10	10 N	200	100	50 N
24	10	10 L	20	50	5 N	20 L	5 L	10	100 N	15	10 N	500	100	50 N
25	5	10 L	7	50	5 N	20 L	5 L	15	100 N	15	10 N	500	100	50 N
26	5	10 L	5	50	5 L	20 L	5 L	15	100 N	20	10 N	200	50	50 N
27	5 N	10 L	5 L	70	5 N	20 L	5 L	20	100 N	20	10 N	300	30	50 N
28	5 L	20	7	70	5 N	20 L	5 L	10	100 N	30	10 N	300	100	50 N
29	5	10	5	50	5 N	20 L	5 L	20	100 N	20	10 N	300	50	50 N
30	5 L	10 L	5 L	50	5 N	20 L	5 L	15	100 N	20	10 N	200	30	50 N
31	10	10 L	15	50	5 N	20 L	10	30	100 N	10	10 N	500	150	50 N
32	5 L	10	5 L	70	15	20 L	5 L	10	100 N	20	10 N	500	30	50 N
33	5 N	10 L	10	50	5 N	20 L	5 N	10	100 N	10	10 N	100 L	20	50 N
33	5 L	20	30	20 L	5 N	20 L	50	20	100 N	7	10 N	100 L	300	50 N

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-Y	S-ZN	S-ZR	AA-AU	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	CM-W	AC-TH	AC-U
					CATNIP CANYON 7.5 MINUTE QUADRANGLE							
1	20	200 N	300	.05N	0.10	22.10	.4	1 L	10 L	20 L	0.0000 B	0.0000 B
2	50	200 N	500	.05N	0.42	11.00	1.4	1 L	30	20 N	0.0000 B	0.0000 B
					CALCUTTA LAKE 7.5 MINUTE QUADRANGLE							
1	70	200 N	1000 G	.05N	1.70	15.80	3.0	1	10	20 N	0.0000 B	0.0000 B
2	30	200 N	300	.05N	95.00 G	8.20	1.7	1 L	200	20 N	5.9900	2.2700
3	50	200 N	300	.05N	0.12	6.20	.8	600	10	20 N	0.0000 B	0.0000 B
4	70	200 N	200	.05N	1.10	104.00	1.7	5	40	20 N	0.0000 B	0.0000 B
5	20	200 N	200	.05N	0.70	1.90	.8	1 L	40	20 N	0.0000 B	0.0000 B
6	50	200 N	300	.05N	0.90	18.00	1.3	1 L	20	20 N	12.3600	3.0100
7	30	200 N	300	.05N	0.70	1.80	.8	2	20	20 N	0.0000 B	0.0000 B
8	70	200 N	500	.05N	2.40	11.60	1.0	1	20	20 N	0.0000 B	0.0000 B
9	50	200 N	300	.05N	0.80	22.40	1.1	1 L	10	20 N	0.0000 B	0.0000 B
10	70	200 N	500	.05N	1.70	45.00	1.6	1 L	10	20 N	7.9700	2.4300
11	50	200 N	500	.05N	5.00	102.00	1.0	1 L	10	20 N	0.0000 B	0.0000 B
12	50	200 N	500	.05N	4.40	7.00	1.6	2	10	20 N	0.0000 B	0.0000 B
13	70	200 N	300	.05N	3.90	3.40	.8	1 L	20	20 N	0.0000 B	0.0000 B
14	50	200 N	300	.05N	50.00	6.50	1.2	1 L	20	20 N	0.0000 B	0.0000 B
15	50	200 N	300	.05N	9.00	9.50	1.2	1 L	20	20 N	0.0000 B	0.0000 B
16	70	200 N	500	.05N	1.80	11.30	2.0	1	50	20 N	0.0000 B	0.0000 B
17	30	200 N	300	.05N	1.70	6.00	1.1	1 L	30	20 N	0.0000 B	0.0000 B
18	100	200 N	300	.05N	0.20	61.00	1.5	1 L	30	20 N	0.0000 B	0.0000 B
19	50	200 N	200	.05N	1.70	24.10	1.4	1 L	20	20 N	0.0000 B	0.0000 B
20	50	200 N	200	.05N	0.42	24.20	.4 N	1 N	10	20 N	0.0000 B	0.0000 B
21	50	200 N	200	.05N	0.07	25.20	.4 N	1 N	20	20 N	0.0000 B	0.0000 B
22	50	200 N	300	.05N	20.00	12.20	1.9	3	100	20 N	6.1400	2.6200
22	50	200 N	500	.05N	16.00	16.50	2.0	1 N	120	20 N	7.7100	2.5500
23	50	200 N	300	.05N	10.50	23.40	2.5	1 L	10	20 N	0.0000 B	0.0000 B
24	30	200 N	200	.05N	0.06	27.60	.4 N	1 N	10	20 N	0.0000 B	0.0000 B
25	30	200 N	200	.05N	0.17	24.40	.4 N	1 N	10	20 N	0.0000 B	0.0000 B
26	50	200 N	300	.05N	0.86	92.00	.5	1 N	10	20 N	0.0000 B	0.0000 B
27	100	200 N	500	.05N	3.70	19.80	2.1	1 L	20	20 N	0.0000 B	0.0000 B
28	70	200 N	300	.05N	0.76	26.50	.4	1 L	30	20 N	0.0000 B	0.0000 B
29	30	200 N	300	.05N	3.50	76.00	.4 N	1 L	10	20 N	0.0000 B	0.0000 B
30	30	200 N	300	.05N	6.20	26.50	.8	1 N	30	20 N	0.0000 B	0.0000 B
31	20	200 N	300	.05N	2.10	20.40	1.0	1 L	10	20 N	0.0000 B	0.0000 B
32	100	200 N	200	.05N	4.00	56.00	.4 N	1 L	60	20 N	9.2400	1.7300
33	50	200 N	700	.05N	17.50	12.90	1.4	1 L	10	20 N	0.0000 B	0.0000 B
33	50	200 N	200	.05N	4.90	28.10	4.8	1	50	20 N	0.0000 B	0.0000 B

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE
34	41 49 35	119 38 12	3,00	,20	0,15	,500	150	15	1000	3,0
35	41 50 6	119 38 39	5,00	,02 L	0,07	,500	50	10	1500	1,0 L
35	41 50 6	119 38 39	2,00	,02 L	0,07	,500	70	10 L	1500	1,0
35	41 50 6	119 38 39	5,00	,50	1,00	1,000	1500	20	2000	1,5
36	41 50 11	119 38 35	2,00	,20	0,10	,300	150	10	1500	1,0
35	41 50 11	119 38 35	7,00	,50	0,20	1,000	150	20	3000	3,0
36	41 50 11	119 38 35	2,00	,02 L	0,05	,500	70	10 L	1000	1,5
37	41 49 47	119 38 16	5,00	1,00	0,70	,500	1000	20	1000	1,0
38	41 49 38	119 38 32	5,00	,50	0,70	,500	1500	10 L	1000	1,0
39	41 49 26	119 38 52	3,00	,70	1,00	,500	700	10	1000	1,5
40	41 50 2	119 38 48	1,50	,30	0,50	,200	300	20	700	1,0
41	41 50 7	119 38 39	2,00	,50	1,00	,200	500	10	1000	1,0
42	41 50 9	119 39 33	0,10	,02	0,10	,010	50	10 L	150	1,5
42	41 50 9	119 39 33	5,00	,20	0,20	,500	200	20	300	1,5
43	41 50 26	119 40 4	2,00	,10	0,30	,200	200	10 L	1000	1,5
43	41 50 26	119 40 4	2,00	,07	0,30	,200	200	15	700	1,5
43	41 50 26	119 40 4	3,00	,30	0,50	,300	200	10 L	1000	1,5
43	41 50 26	119 40 4	5,00	,07	0,20	,150	200	10 N	500	3,0
44	41 51 3	119 40 8	5,00	,10	0,10	,300	150	10 L	1000	3,0
45	41 50 11	119 38 52	2,00	,70	2,00	,300	2000	10 L	2000	3,0
46	41 50 15	119 38 48	10,00	,30	0,20	,150	500	10	2000	10,0
47	41 50 2	119 38 57	5,00	,20	0,20	,300	150	10 L	500	2,0
48	41 49 59	119 38 57	1,00	,07	0,05	,200	50	10 L	100	2,0
49	41 49 4	119 38 22	7,00	,50	1,00	,700	1500	10 L	1500	1,5
50	41 50 4	119 39 11	3,00	,50	0,70	,500	500	30	500	2,0
51	41 50 6	119 39 14	3,00	,70	0,70	,500	5000 G	10	5000 G	2,0
51	41 50 6	119 39 14	10,00	,30	0,20	,500	2000	10 L	700	3,0
52	41 50 11	119 39 1	5,00	,30	0,10	,500	200	20	700	2,0
53	41 50 13	119 39 7	3,00	,10	0,07	,300	200	10	700	2,0
54	41 50 17	119 39 24	2,00	,05	0,05	,200	150	20	1000	3,0
55	41 50 17	119 38 27	7,00	,50	0,50	,100	700	30	1500	2,0
56	41 50 18	119 39 30	5,00	1,00	0,70	,300	500	50	700	1,5
57	41 50 35	119 39 37	3,00	,30	0,10	,500	500	20	500	2,0
58	41 50 43	119 39 30	3,00	,70	1,00	,200	500	20	1000	1,0
59	41 50 26	119 39 37	1,00	,05	0,07	,100	200	30	100	2,0
60	41 50 26	119 39 33	5,00	1,00	0,50	,500	300	10	1000	2,0
61	41 50 27	119 39 29	5,00	,20	0,20	,300	500	10	1000	2,0
62	41 50 30	119 39 32	7,00	,30	0,20	,500	200	10	150	2,0
63	41 50 25	119 39 25	3,00	,10	0,20	,300	200	10	2000	1,5
64	41 50 30	119 39 14	2,00	,15	0,15	,100	150	10 L	150	2,0
65	41 50 12	119 39 38	5,00	,50	0,70	,500	300	20	500	2,0

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
34	5 L	10 L	10	50	5 N	20 L	5 L	20	100 N	20	10 N	300	50	50 N
35	5 N	10 L	5	50	5 N	20 L	5 L	10	100 N	10	10 N	500	50	50 N
35	5 N	10 L	5	50	5 N	20 L	5 L	10	100 N	15	10 N	500	30	50 N
35	5 L	10 L	5	50	5 N	20 L	5 L	20	100 N	20	10 N	500	50	50 N
36	5 N	10 L	7	50	5 N	20 L	5 L	10	100 N	5	10 N	100 L	30	50 N
36	5 L	10 L	10	50	5 N	20 L	5 L	10	100 N	20	10 N	100 L	150	50 N
36	5 N	10 N	10	50	5 N	20 L	5 L	10	100 N	10	10 N	100	30	50 N
37	15	10 L	20	50	5 N	20 L	5	20	100 N	20	10 N	300	100	50 N
38	10	10 L	15	50	5 N	20 L	5 L	20	100 N	20	10 N	500	100	50 N
39	10	10 L	20	50	5 N	20 L	5	15	100 N	20	10 N	500	100	50 N
40	5 L	10	10	50	5 L	20 L	10	10	100 N	5 L	10 N	200	50	50 N
41	5 L	10	15	50	5 N	20 L	7	10	100 N	5	10 N	200	30	50 N
42	5 N	10 L	15	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 N	20	50 N
42	5	30	5 L	150	5 N	20 L	5 L	20	100 N	30	10 N	100 L	70	50 N
43	5 L	10 L	7	50	5 N	20 L	5 L	15	100 N	10	10 N	300	10	50 N
43	5 L	10 L	5	50	5 N	20 L	5 L	10	200	7	10 N	200	20	50 N
43	5 L	10 L	5 L	50	5 N	20 L	5	15	100 L	15	10 N	300	20	50 N
43	5 L	10	5	20 L	5 N	20 L	5	10 L	200	7	10 N	100	50	50
44	5 L	10	10	50	5 N	20 L	5	20	150	20	10 N	700	100	100
45	5 L	10 L	10	100	5 N	20 L	5 L	20	100 N	10	10 N	100	30	50 N
46	5 L	10 L	10	50	10	20 L	5 L	10	100 L	5	10 N	100	50	50 N
47	5 L	10 L	5	70	5 N	20 L	5 L	20	100 N	20	10 N	100	50	50 N
48	5 L	20	15	50	5 N	20 L	5 L	15	100 N	7	10 N	100 L	50	50 N
49	5 L	10 L	5 L	70	5 N	20 L	5 L	20	100 N	20	10 N	500	50	50 N
50	5 L	10	15	70	5 N	20 L	5 L	20	100 N	20	10 N	300	100	50 N
51	100	10	15	70	100	20 L	5 L	30	100 N	20	10 N	300	100	50 N
51	5 L	10	15	50	5 N	20 L	5 L	15	100 N	20	10 N	200	150	50 N
52	5 L	10	10	50	5 N	20 L	5 L	20	100 L	20	10 N	100	50	50 N
53	5 L	10	15	70	5 N	20 L	5 L	20	100 L	15	10 N	100 L	100	50 N
54	5 L	10 L	5	20 L	5 N	20 L	5 L	20	500	5	10 N	200	50	50 L
55	5	15	5	50	5 N	20 L	5 L	20	500	30	10 N	200	50	70
56	10	20	20	50	5 N	20 L	20	20	100 N	20	10 N	200	50	50 N
57	5 L	20	20	70	5 N	20 L	7	20	100 N	20	10 N	100	100	50 N
58	5	10	10	50	5 N	20 L	10	20	100 N	7	10 N	500	50	50 N
59	5 L	10 L	5 L	50	5 L	20 L	5	20	100 N	5	10 N	100 L	10	50 N
60	5	20	10	100	5 N	20 L	5 L	30	200	20	10 N	200	50	70
61	5 L	10 L	5	50	5 N	20 L	5 L	15	100	10	10 N	100	20	50 N
62	5 L	10 L	5	70	5 N	20 L	5 L	15	100 L	15	10 N	100	20	50 N
63	5 L	10 L	5	100	5 N	20 L	5 L	20	100	10	10 N	100	20	50 N
64	5 L	10 N	10	70	5 N	20 L	5 L	10	100 N	5	10 N	100 L	20	50 N
65	5 L	10	15	100	5 N	20 L	5 L	20	200	20	10 N	200	50	50 N

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-Y	S-ZN	S-ZR	AA-AU	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	CM-W	AC-TH	AC-U
34	30	200 N	300	.05N	15.20	5.10	.4 N	1 N	20	20 N	0.0000 B	0.0000 B
35	10	200 N	300	.05N	5.00	1.10	2.1	20	20	20 N	0.0000 B	0.0000 B
35	70	200 N	300	.05N	0.72	1.70	1.7	1 L	10 L	20 N	0.0000 B	0.0000 B
35	50	200 N	300	.05N	0.37	16.80	1.6	1 L	10	20 N	0.0000 B	0.0000 B
36	10	200 N	200	.05N	3.60	2.20	1.1	1	80	20 N	0.0000 B	0.0000 B
36	70	200 N	200	.14	4.10	11.40	4.2	1 L	40	20 N	0.0000 B	0.0000 B
36	10	200 N	300	.05N	11.50	1.30	1.6	25	10	20 N	0.0000 B	0.0000 B
37	30	200 N	200	.05N	0.24	18.70	.4	1 L	10	20 N	0.0000 B	0.0000 B
38	50	200 N	200	.05N	0.50	61.00	.4	1 N	20	20 N	0.0000 B	0.0000 B
39	50	200 N	200	.05N	0.07	29.40	.6	1 N	10	20 N	0.0000 B	0.0000 B
40	20	200 N	100	.05N	0.58	11.60	.4 N	1 L	10	20 N	0.0000 B	0.0000 B
41	20	200 N	100	.05N	2.80	13.90	.4 N	1 L	10	20 N	0.0000 B	0.0000 B
42	10 N	200 N	20	.05N	0.07	1.20	.4 N	1 L	10	20 N	0.0000 B	0.0000 B
42	150	200 N	300	.05N	0.95	38.00	.7	15	40	20 N	0.0000 B	0.0000 B
43	30	200 N	200	.05N	0.55	17.20	.4 N	25	30	20 N	0.0000 B	0.0000 B
43	30	200 N	200	.05N	2.20	11.90	.4 N	60	100	20 N	0.0000 B	0.0000 B
43	30	200 N	200	.10	0.17	66.00	.4 N	15	20	20 N	0.0000 B	0.0000 B
43	20	200 N	70	.06	1.60	5.50	.4 N	30	120	20 N	0.0000 B	0.0000 B
44	30	200 N	200	.84	23.00	15.30	.4	40	1400	20 N	0.0000 B	2.5100
45	200	200 N	300	.05L	1.30	14.60	1.1	5	30	20 L	0.0000 B	0.0000 B
46	20	200 N	150	.05L	4.20	13.60	.4	20	40	20 L	0.0000 B	0.0000 B
47	50	200 N	300	.05N	23.00	29.60	1.9	10	40	20 N	0.0000 B	0.0000 B
48	20	200 N	150	.05N	0.65	23.80	1.4	1	20	20 N	0.0000 B	0.0000 B
49	70	200	300	.05N	0.17	28.00	2.2	1 L	20	20 N	0.0000 B	0.0000 B
50	50	200 N	200	.05N	12.00	29.30	1.7	5	40	20 N	0.0000 B	0.0000 B
51	70	200 N	500	.05N	3.20	48.00	1.8	5	20	20 N	13.0500	5.1100
51	50	200 N	300	.05N	1.50	52.00	2.4	10	100	20 N	4.9900	3.4700
52	50	200 N	300	.05N	5.40	15.20	1.9	10	200	20 N	0.0000 B	0.0000 B
53	30	200 N	200	.05N	1.00	16.40	1.1	10	20	20 N	0.0000 B	0.0000 B
54	15	200 N	150	.05N	100.00 G	8.40	1.8	250	250	20 N	0.0000 B	0.0000 B
55	100	200 N	300	.05N	19.00	47.00	1.8	250	30	20 N	0.0000 B	0.0000 B
56	50	200 N	200	.05N	2.30	52.00	2.4	20	40	20 N	0.0000 B	0.0000 B
57	30	200 N	200	.05N	0.40	47.00	.4	5	20	20 N	0.0000 B	0.0000 B
58	20	200 N	200	.05N	0.30	7.00	1.2	1 L	10	20 N	0.0000 B	0.0000 B
59	50	200 N	200	.05N	0.30	15.00	1.0	1 L	10	20 N	0.0000 B	0.0000 B
60	70	200 N	300	.05N	25.00	25.00	1.9	100	100	20 N	0.0000 B	0.0000 B
61	70	200 N	500	.05N	19.00	17.20	1.4	60	10	20 N	0.0000 B	0.0000 B
62	70	200 N	500	.05N	0.90	24.40	1.4	60	10	20 N	0.0000 B	0.0000 B
63	70	200 N	300	.05N	3.80	43.00	1.2	40	20	20 N	0.0000 B	0.0000 B
64	30	200 N	500	.05N	0.10	20.00	1.2	1	10	20 N	0.0000 B	0.0000 B
65	70	200 N	300	.05N	1.40	49.00	2.0	200	120	20 N	0.0000 B	0.0000 B

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE
66	41 50 18	119 39 17	5,00	,15	0,10	,500	150	10	2000	1,0
67	41 50 20	119 39 9	3,00	,10	0,10	,500	150	10	1000	2,0
68	41 50 22	119 39 3	5,00	,20	0,10	,300	150	10 L	1500	2,0
69	41 50 25	119 39 6	5,00	,50	0,50	,300	300	15	700	1,5
70	41 50 26	119 39 7	1,00	,10	0,50	,100	300	30	300	2,0
71	41 50 21	119 38 46	0,50	1,00	0,70	,300	500	50	1000	2,0
72	41 50 26	119 38 51	5,00	,30	0,50	1,000	500	10	1500	2,0
73	41 50 26	119 38 38	5,00	,70	1,00	1,000	1000	20	3000	1,0
74	41 50 25	119 38 27	5,00	,50	0,70	,500	700	10	2000	1,5
75	41 50 12	119 38 30	3,00	,30	0,20	1,000	500	10	3000	1,0
		CATNIP MOUNTIAN SE 7,5 MINUTE QUADRANGLE								
1	41 47 33	119 22 27	0,02	,02	0,10	,030	150	10	700	5,0
2	41 48 56	119 18 59	5,00	,05	0,05	,300	3000	50	3000	5,0
3	41 46 32	119 21 59	3,00	,07	0,05	,100	3000	70	700	7,0
4	41 48 43	119 18 24	0,10	,05	0,05	,010	200	10 L	700	1,0
5	41 45 46	119 15 15	2,00	,05	0,07	,100	1000	30	200	3,0
6	41 47 49	119 16 36	0,10	,05	0,05 L	,015	50	10 L	300	1,0
7	41 47 44	119 16 27	0,07	,05	0,05	,010	50	10 L	700	1,0
8	41 45 24	119 22 5	2,00	1,00	0,70	,200	1000	30	500	2,0
9	41 46 24	119 17 54	1,00	,02	0,05	,050	200	50	50	5,0
10	41 46 30	119 17 32	1,00	,05	0,05	,100	200	20	100	2,0
11	41 46 42	119 17 13	1,00	,05	0,05	,100	500	20	150	2,0
12	41 46 50	119 17 21	2,00	,20	0,05	,100	2000	50	100	3,0
13	41 50 47	119 16 39	3,00	,30	0,10	,300	1500	50	150	3,0
14	41 45 33	119 21 39	3,00	,05	0,05	,100	500	50	150	5,0
15	41 45 24	119 21 24	2,00	,05	0,10	,100	300	50	150	5,0
16	41 45 43	119 21 27	2,00	,05	0,10	,100	200	50	1000	5,0
17	41 45 38	119 21 37	2,00	,05	0,07	,070	700	50	500	5,0
		HAWKS MOUNTIAN 7,5 MINUTE QUADRANGLE								
1	42- 0 38	119 5 50	10,00	,10	0,30	,300	5000	10	5000	3,0
		NUT MOUNTIAN 7,5 MINUTE QUADRANGLE								
1	41 36 56	119 23 39	0,10	,02	0,05 L	,010	50	10 L	50	2,0
2	41 36 16	119 22 45	0,05 L	,02	0,05 L	,005	10 L	10 L	100	1,0
3	41 36 11	119 22 59	0,10	,02	0,05	,005	100	10 L	300	2,0
4	41 34 37	119 22 33	0,05 L	,02 L	0,05 L	,007	10 L	10 L	150	1,5
5	41 36 46	119 23 14	2,00	,15	0,10	,150	150	50	150	3,0
6	41 36 43	119 23 8	2,00	,10	0,50	,150	1000	50	1000	3,0

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
66	5 L	10	7	100	5 N	20 L	5 L	20	100 L	15	10 N	100	50	50 N
67	5 L	10 L	5 L	50	5 N	20 L	5	10	200	10	10 N	200	30	50
68	5 L	10	5	70	5 N	20 L	5 L	20	200	20	10 N	1500	70	100
69	5	10 L	15	100	5 N	20 L	15	20	100 N	20	10 N	300	70	50 N
70	5 L	10 L	7	70	5 N	20 L	5	15	100 N	5	10 N	100	20	50 N
71	5 L	10	10	100	5 L	20 L	7	20	200	20	10 N	300	50	50 L
72	5	10 L	5	50	5 N	20 L	5	20	100 N	20	10 N	100	50	50 N
73	10	10	15	70	5 N	20 L	5 L	20	100 N	30	10 N	200	70	50 N
74	5 L	10 L	5	50	5 N	20 L	5	20	100 N	20	10 N	300	30	50 N
75	5 L	10 L	5 L	50	10	20 L	5 L	15	100 N	15	10 N	200	30	50 N
CATNIP MOUNTIAN SE 7.5 MINUTE QUADRANGLE														
1	5 N	10 L	5 L	50	5 N	20 N	5 L	10 L	100 N	5 N	10 N	100 L	10	50 N
2	20	10 L	5	70	5 N	20 N	5 L	20	100 N	10	10 N	100 L	70	50 N
3	5 N	10 L	15	70	5 N	20	5 L	50	100 N	5 N	10	100 L	50	50 N
4	5 N	10 L	5	50	5 N	20 L	5 L	10 L	100 N	5 N	10 N	100 L	10	50 N
5	7	10 N	10	100	5 L	20 L	5 L	50	100 N	5 N	10 L	100 L	30	50 N
6	5 L	10 L	5 L	50	5 N	20 L	5 L	10 L	100 N	5 L	10 N	100 L	10	50 N
7	5 L	10 L	5 L	50	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 L	10	50 N
8	10	10 L	10	50	10	20 L	15	30	100 N	10	10 N	200	100	50 N
9	5 L	10 L	5 L	50	10	20	5	30	100 N	5 L	10 N	100 L	10	50 N
10	5 L	10 L	5	150	5 L	20 L	5	30	100 N	5 L	10 N	100 L	20	50 N
11	5 L	10 L	5 L	150	5 N	20 L	5	20	100 N	5 L	10 N	100 L	20	50 N
12	5 L	10 L	5 L	100	5 L	20 L	5 L	20	100 N	10	10 N	100 L	10 L	50 N
13	5 L	10 L	10	100	10	20 L	5 L	50	100 N	15	10 N	100 L	30	50 N
14	5 L	10 L	5	150	5 N	20 L	15	70	100 N	5	10	100 L	30	50 N
15	5 L	10 L	5	100	5	20 L	5 L	50	100 N	5 L	10 L	100 L	30	50 N
16	5 L	10 L	15	150	5 L	20 L	5	50	100 N	5 L	10	100 L	30	50 N
17	5 L	10 L	10	150	5 N	20 L	5 L	50	100 N	5 L	10	100 L	20	50 N
HAWKS MOUNTIAN 7.5 MINUTE QUADRANGLE														
1	70	10 L	10	100	10	20 L	5	15	100 N	10	10 N	100	200	50 N
NUT MOUNTIAN 7.5 MINUTE QUADRANGLE														
1	5 N	10 N	5 L	20 L	5 N	20 L	5 N	10 N	100 N	5 N	10 N	100 L	20	50 N
2	5 N	10 N	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 L	10	50 N
3	5 N	10 N	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 L	10	50 N
4	5 L	10 N	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 L	15	50 N
5	5 L	10 L	5	70	5 N	20 L	5 L	20	100 N	5 L	10 N	100 L	30	50 N
6	5 L	10 L	10	200	5 N	20 L	5 L	30	100 N	5 L	10 N	100 L	30	50 N

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-Y	S-ZN	S-ZR	AA-AU	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	CM-W	AC-TH	AC-U
66	100	200 N	500	.05N	3.30	10.50	1.4	40	120	20 N	0.0000 B	0.0000 B
67	20	200 N	300	.05N	82.00	11.80	1.0	100	140	20 N	0.0000 B	0.0000 B
68	50	200 N	300	.05N	0.40	16.20	1.6	80	100	20 N	0.0000 B	0.0000 B
69	70	200 N	300	.05N	7.40	49.00	2.2	4	10	20 N	0.0000 B	0.0000 B
70	50	200 N	300	.05N	0.40	20.40	2.0	1 L	20	20 N	0.0000 B	0.0000 B
71	50	200 L	300	.05N	5.60	36.00	1.6	60	20	20 N	0.0000 B	0.0000 B
72	70	200 N	500	.05N	2.80	84.00	2.2	20	80	20 N	0.0000 B	0.0000 B
73	70	200 N	500	.05N	0.80	59.00	1.2	4	20	20 N	0.0000 B	0.0000 B
74	50	200 N	200	.05N	3.10	58.00	1.1	1 L	10	20 N	0.0000 B	0.0000 B
75	50	200 N	300	.05N	8.20	28.80	.5	3	60	20 N	0.0000 B	0.0000 B
CAINIP MOUNTIAN SE 7.5 MINUTE QUADRANGLE												
1	20	200 N	200	.05N	0.05	2.30	.4 L	1 L	10	20 L	0.0000 B	0.0000 B
2	30	200 N	1000	.05N	0.20	10.50	.4 L	1	40	20 L	0.0000 B	0.0000 B
3	100	200 N	1000 G	.05N	0.25	15.20	.5	2	120	20 L	0.0000 B	0.0000 B
4	10 L	200 N	30	.05N	0.36	3.00	.8	60	10	20 N	0.0000 B	0.0000 B
5	70	200 N	500	.05N	0.21	25.00	.4 L	2	20	20 L	0.0000 B	0.0000 B
6	20	200 N	70	.05N	0.09	4.00	.4 L	1	20	20 L	0.0000 B	0.0000 B
7	30	200 N	20	.05N	0.05	1.60	.4 L	1	10	20 L	0.0000 B	0.0000 B
8	30	200 N	100	.05N	0.04	21.80	.5	1 N	10	20 N	16.0300	4.8100
9	50	200 N	300	.05L	0.05	21.50	.4 L	1 L	40	20 L	0.0000 B	0.0000 B
10	50	200 N	300	.05L	0.03	29.50	.4 L	1 L	10	20 L	0.0000 B	0.0000 B
11	70	200 N	200	.05L	0.04	22.50	.4 L	2	10	20 L	0.0000 B	0.0000 B
12	100	200 N	500	.05L	0.02 N	8.80	.4 L	2	10	20 L	0.0000 B	0.0000 B
13	100	200 N	500	.05L	0.04	14.50	.4 L	1	10	20 L	0.0000 B	0.0000 B
14	200	200 L	1000 G	.05L	0.02 N	26.00	.4 L	1	20	20 L	0.0000 B	0.0000 B
15	100	200 N	500	.05L	0.02	24.50	.4 L	1	10	20 L	0.0000 B	0.0000 B
16	200	200 N	1000	.05L	0.05	18.80	.4 L	1	20	20 L	0.0000 B	0.0000 B
17	200	200 L	1000	.05L	0.03	27.00	.4 L	15	20	20 L	0.0000 B	0.0000 B
HAWKS MOUNTIAN 7.5 MINUTE QUADRANGLE												
1	150	200 N	500	.05L	0.84	37.00	.9	1 L	140	20 L	17.6700	7.9800
NUT MOUNTIAN 7.5 MINUTE QUADRANGLE												
1	10	200 N	300	.05N	0.55	20.60	.4 L	2	60	20 L	0.0000 B	0.0000 B
2	10 L	200 N	200	.05N	0.31	1.40	.4 L	1 L	10	20 L	0.0000 B	0.0000 B
3	10 L	200 N	50	.05N	0.18	1.20	.4 L	1 N	20	20 L	0.0000 B	0.0000 B
4	10 L	200 N	30	.05N	0.24	1.00	.4 L	1 N	10	20 L	0.0000 B	0.0000 B
5	50	200 N	500	.05N	0.10	25.70	1.2	1 L	30	20 N	0.0000 B	0.0000 B
6	100	200 N	300	.05N	0.10	22.40	1.4	1 L	20	20 N	0.0000 B	0.0000 B

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE
				RYE CREEK 7.5 MINUTE QUADRANGLE						
1	41 56 21	119 30 51	10.00	3.00	5.00	1.000	2000	10 L	500	1.0 N
2	41 52 32	119 35 36	2.00	.02 L	0.10	1.000	150	10 L	2000	1.0 L
3	41 53 39	119 34 50	0.20	.05	0.05	.020	500	10 L	1000	1.0 L
				RAILROAD POINT 15 MINUTE QUADRANGLE						
1	41 48 39	118 51 37	5.00	.02 L	0.05	.200	50	10 L	100	2.0
1	41 48 39	118 51 37	1.00	.10	0.30	.100	300	10	700	1.5
1	41 48 39	118 51 37	0.50	.10	0.50	.150	700	10	300	1.0 L
2	41 51 19	118 49 44	2.00	.05	0.15	.300	1000	20	200	2.0
3	41 49 53	118 50 3	2.00	.02	0.10	.200	700	20	100	2.0
4	41 48 47	118 51 34	2.00	.05	0.05	.050	5000 G	10 L	5000 G	7.0
4	41 48 47	118 51 34	2.00	.30	0.50	.100	1500	70	1000	3.0
5	41 48 54	118 51 34	0.10	.03	0.20	.020	100	10 L	700	1.0 L
6	41 47 57	118 51 57	0.50	.02	0.05	.030	50	10	100	1.0 L
6	41 47 57	118 51 57	0.50	.02 L	0.30	.020	5000 G	10	1500	1.0 L
7	41 50 48	118 52 50	3.00	.05	0.07	.100	200	20	100	2.0
8	41 51 25	118 54 15	2.00	.30	0.20	.100	700	20	100	3.0
9	41 48 24	118 51 57	2.00	.20	0.50	.300	500	30	500	2.0
10	41 48 24	118 52 0	2.00	.30	1.00	.200	1500	20	1000	2.0
11	41 48 23	118 52 8	2.00	.07	0.07	.070	500	50	100	3.0
11	41 48 23	118 52 8	1.50	.05	0.10	.100	500	50	50	3.0
12	41 48 19	118 51 57	2.00	.15	0.20	.200	500	20	100	3.0
12	41 48 19	118 51 57	2.00	.20	0.20	.150	2000	10	1000	7.0
13	41 48 5	118 51 45	2.00	.10	0.10	.100	300	20	300	2.0
14	41 53 20	118 58 36	0.50	.05	0.10	.070	100	20	200	2.0
14	41 53 20	118 58 36	1.00	.05	0.07	.070	300	20	150	2.0
15	41 54 10	118 56 59	1.00	.02 L	0.05	.070	200	20	50	2.0
16	41 53 17	118 57 3	1.00	.02 L	0.05	.100	150	30	30	2.0
16	41 53 17	118 57 3	1.00	.02	0.07	.100	200	30	20	2.0
16	41 53 17	118 57 3	1.00	.02 L	0.05	.070	150	20	20	2.0
17	41 47 0	118 59 0	1.50	.05	0.05	.010	30	10 L	100	5.0
18	41 49 33	118 51 33	1.00	.10	0.15	.200	500	20	150	2.0
19	41 49 29	118 51 35	1.00	.10	0.20	.200	700	20	150	3.0
20	41 58 32	118 59 44	2.00	.15	0.30	.300	200	10	200	5.0
21	41 51 53	118 59 39	0.70	.10	0.10	.100	200	20	200	1.5
22	41 51 51	118 58 54	1.00	.20	0.15	.100	500	30	150	2.0
23	41 51 34	118 57 33	1.00	.10	0.10	.150	500	20	300	2.0
24	41 50 34	118 56 53	1.00	.07	0.10	.100	300	20	300	2.0
25	41 49 17	118 54 51	2.00	.10	0.07	.150	500	20	150	2.0
26	41 49 9	118 54 21	1.50	.10	0.07	.200	300	30	50	2.0

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
						RYE CREEK 7.5 MINUTE QUADRANGLE								
1	50	100	100	20 N	5 N	20 N	150	10 L	100 N	20	10 N	200	300	50 N
2	5 N	15	10	200	5 N	20 L	5 L	20	100 N	15	10 N	1000	150	50 N
3	5 L	10 L	5 L	100	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 N	20	50 N
						RAILROAD POINT 15 MINUTE QUADRANGLE								
1	5 N	10 L	10	50	5 L	20 L	5 L	10 L	100 N	7	10 N	100	70	50 N
1	5 L	30	10	30	5 N	20 L	5 L	10 L	100 N	5	10 N	200	100	50 N
1	5 N	10 L	7	20	5 N	20 L	5 L	10 L	100 N	5 N	10 N	100 L	20	50 N
2	5 N	10 L	5	70	5 N	20 L	5 L	30	100 N	5	10 N	100	20	50 N
3	5 N	10 L	5	50	5 N	20 L	5 L	20	100 N	5	10 N	100 L	10	50 N
4	5 L	30	100	20 L	500	20 L	5	70	100	5	10 N	500	500	500
4	5 N	10 L	10	50	5 N	20 L	5 L	20	100 N	5	10 N	100	10	50 N
5	5 N	10 L	5 L	20	5 N	20 L	5 L	10	100 N	5 N	10 N	100	30	50 N
5	5 N	20	5 L	20	5 N	20 L	5 L	10	100 N	5 N	10 N	100 L	70	50 N
6	5 L	10 L	10	20	5 N	20 L	5 L	10	100 N	5 N	10 N	500	500	200
7	5 N	10 L	5 L	70	5 N	20 L	5 L	15	100 N	5	10 N	200	70	50 N
8	5 N	10 L	5 L	70	5 N	20 L	5 L	15	100 N	5	10 N	100	20	50 N
9	5 L	30	10	70	5 L	20 L	10	15	100 N	10	10 N	200	50	50 N
10	5	20	15	70	5 N	20 L	10	20	100 N	5	10 N	300	30	50
11	5 L	10 L	5	100	10	20 L	5	20	100 N	5	10 N	100 L	10	50 N
11	5 L	10 N	5 L	100	5 L	20 L	5 L	20	100 N	5	10 N	100 L	10	50 N
12	5 L	20	7	100	5 N	20 L	5 L	30	200	10	10 N	100	20	70
12	5 N	10 L	10	50	5 N	20 L	5 L	30	100	5	10 N	100	10	50 L
13	5 L	50	5	70	5 N	20 L	5 L	20	300	5 L	10 N	100 L	20	70
14	5 L	10 L	5 L	50	20	20 L	5 L	15	100 N	5 L	10 N	100 L	10	50 N
14	5 L	10 L	5 L	100	5 N	20 L	5 L	15	100 N	5 L	10 N	100 L	10	50 N
15	5 L	10 N	5 L	50	5 N	20 L	5 L	20	100 N	5 L	10 N	100 N	30	50 N
16	5 L	10 N	5 L	100	5 N	20 L	5 L	20	100 N	5 L	10 N	100 N	10 L	50 N
16	5 L	10 N	5 L	70	5 N	20 L	5 L	20	100 N	5 L	10 N	100 N	10 L	50 N
16	5 L	10 N	5 L	50	5 N	20 L	5 L	20	100 N	5 L	10 N	100 N	10	50 N
17	5 L	30	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 N	100	50 N
18	5 N	10 L	5 L	50	5 N	20 L	5	10	100 N	5	10 N	100 L	10	50 N
19	5 N	10 L	5	50	5 N	20 L	5	15	100 N	5	10 N	100 L	10	50 N
20	5 L	20	10	50	5 N	20 L	5	20	100 N	10	10 N	100 L	20	50 L
21	5 N	10 L	5 L	70	5 N	20 L	5	20	100 N	5	10 N	100 L	10 L	50 N
22	5 N	10 L	7	50	5 N	20 L	5	100	100 N	5	10 L	100 L	30	50 N
23	5 N	10 L	5	100	5 N	20 L	7	15	100 N	5	10 N	100 L	10	50 N
24	5 N	10 L	5	70	7	20 L	5	10	100 N	5	10 N	100 L	10	50 N
25	10	10 L	5	50	5	20 L	5	20	100 N	7	10 L	100 L	20	50 N
26	5 L	10 L	5	70	10	20 L	10	20	100 N	7	10 L	100 N	10	50 N

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-Y	S-ZN	S-ZR	AA-AU	INS1-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	CM-W	AC-TH	AC-U
					RYE CREEK 7.5 MINUTE QUADRANGLE							
1	20	200 N	70	.05N	0,07	15,90	.8	1 N	10	20 L	0,0000 B	0,0000 B
2	50	200 N	500	.05N	11,50	1,40	1,8	2	20	20 N	0,0000 B	0,0000 B
3	50	200 N	20	.05N	8,25	1,40	.4 N	1	10	20 N	0,0000 B	0,0000 B
					RAILROAD POINT 15 MINUTE QUADRANGLE							
1	50	200 N	500	.05N	16,00	3,00	.4 L	5	60	20 L	0,0000 B	0,0000 B
1	15	200 N	100	.05N	100,00 G	4,00	.4 L	5	40	20 L	0,0000 B	0,0000 B
1	10 L	200 N	20	.05N	1,70	3,50	.4 L	1 L	20	20 L	0,0000 B	0,0000 B
2	50	200 N	1000	.00B	1,00	19,00	.4 L	1 L	20	20 L	0,0000 B	0,0000 B
3	50	200 N	1000	.05N	0,75	30,00	.4 L	10	20	20 L	0,0000 B	0,0000 B
4	30	200 N	100	.05L	3,40	8,40	1,1	10	800	60	0,0000 B	0,0000 B
4	30	200 N	200	.05L	0,31	8,40	.4	1	20	20 L	0,0000 B	0,0000 B
5	10 L	200 N	10 L	.05N	0,02	2,10	.4 L	1 L	40	20 L	0,0000 B	0,0000 B
6	10 L	200 N	10 L	.05N	0,03	1,60	.4 L	2	20	20 L	0,0000 B	0,0000 B
6	10 L	200 N	50	.05N	1,00	3,70	2,4	40	100	120	0,0000 B	11,3000
7	50	200 N	200	.05N	0,49	19,30	.4 L	2	100	20 L	0,0000 B	0,0000 B
8	20	200 N	200	.05N	0,15	19,80	.4 L	1 L	40	20 L	0,0000 B	0,0000 B
9	50	200 N	200	.05N	0,10	11,00	.4 L	10	10	20 L	0,0000 B	0,0000 B
10	50	200 N	200	.05N	0,15	10,60	.6	4	10	20 L	0,0000 B	0,0000 B
11	70	200 N	200	.05N	0,14	15,00	.4 L	5	10	20 L	0,0000 B	0,0000 B
11	50	200 N	200	.05N	0,10	6,80	.4 L	2	10	20 L	0,0000 B	0,0000 B
12	70	200	200	.05N	4,60	6,00	.5	3	10	20 L	0,0000 B	0,0000 B
12	30	200 N	150	.05L	0,60	5,10	.5	40	30	20 L	0,0000 B	0,0000 B
13	50	200 N	300	.05N	9,20	7,40	.4 L	120	10	20 L	0,0000 B	0,0000 B
14	30	200 N	200	.05N	0,14	3,70	.4	2	10	20 L	0,0000 B	0,0000 B
14	20	200 N	200	.05N	0,31	13,90	.4 L	15	40	20 L	0,0000 B	0,0000 B
15	20	200 N	150	.05N	0,24	9,80	.4 L	15	40	20 L	0,0000 B	0,0000 B
16	50	200 N	200	.05N	0,18	18,00	.4 L	5	70	20 L	0,0000 B	0,0000 B
16	50	200 N	300	.05N	0,25	19,00	.4 L	4	100	20 L	0,0000 B	0,0000 B
16	30	200 N	200	.05N	0,25	9,20	.4 L	5	60	20 L	0,0000 B	0,0000 B
17	20	200 N	10 L	.05N	0,05	3,30	.4 L	1	140	20 L	0,0000 B	11,0000
18	30	200 N	300	.05L	0,07	9,10	.4 L	1 L	20	20 L	0,0000 B	0,0000 B
19	50	200 N	300	.05L	0,10	10,90	.4 L	1 L	20	20 L	0,0000 B	0,0000 B
20	50	200 N	300	.05L	0,64	17,50	.5	20	80	20 L	0,0000 B	0,0000 B
21	20	200 N	200	.05L	0,10	8,40	.4 L	1 L	10	20 L	0,0000 B	0,0000 B
22	20	200 N	300	.05L	0,06	11,30	.4	1	20	20 L	0,0000 B	0,0000 B
23	20	200 N	300	.05L	0,11	23,00	.4	1 L	10	20 L	0,0000 B	0,0000 B
24	50	200 N	300	.05L	0,10	12,30	.4 L	1 L	20	20 L	0,0000 B	0,0000 B
25	30	200 N	300	.05L	0,06	13,50	.4 L	1 L	20	20 L	0,0000 B	0,0000 B
26	30	200 N	500	.05L	0,16	13,00	.4 L	1 N	30	20 L	0,0000 B	0,0000 B

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE
26	41 49 9	118 54 21	1.50	.07	0.07	.150	1000	20	150	2.0
27	41 51 28	118 59 39	1.00	.05	0.10	.100	500	20	70	2.0
28	41 51 15	118 59 44	3.00	.20	0.20	.500	300	30	150	3.0
29	41 48 39	118 52 8	0.10	.05	0.10	.050	500	10 L	150	2.0
30	41 54 0	118 59 3	0.70	.02 L	0.05	.005	30	10 L	100	1.0 L
30	41 54 0	118 59 3	0.10	.02 L	0.05	.020	30	10 L	100	1.0 L
31	41 48 39	118 52 18	5.00	1.00	1.00	.500	2000	10 L	1000	1.0
32	41 48 39	118 52 0	5.00	.50	0.20	.100	500	70	300	3.0
33	41 53 16	118 53 31	1.00	.10	0.05	.100	300	50	200	2.0
		ROCK SPRING TABLE 15 MINUTE QUADRANGLE								
1	41 41 45	119 1 50	1.00	.10	0.10	.070	500	30	30	3.0
2	41 44 22	119 8 36	0.10	.02 L	0.07	.020	150	10 L	200	7.0
3	41 40 9	119 12 44	0.10	.05	0.05	.010	200	10 L	500	1.0 L
3	41 40 9	119 12 44	3.00	.30	0.50	.500	1500	50	1000	2.0
4	41 40 8	119 13 31	0.05	.10	0.10	.015	100	10	700	3.0
5	41 38 53	119 12 59	2.00	.30	0.50	.200	500	30	1000	2.0
6	41 39 2	119 12 5	2.00	.10	0.10	.030	5000 G	15	500	5.0
7	41 38 36	119 11 44	0.10	.02 L	0.07	.010	50	10 L	150	1.5
8	41 37 41	119 10 45	0.10	.03	0.05	.010	30	10 L	150	3.0
9	41 44 20	119 11 59	1.00	.20	0.10	.100	500	20	150	5.0
9	41 44 20	119 11 59	1.00	.20	0.20	.200	700	10	500	3.0
10	41 43 19	119 11 18	0.50	.10	0.10	.100	200	10 L	100	3.0
10	41 43 19	119 11 18	0.05	.02	0.05 L	.300	50	10 L	100	2.0
11	41 44 15	119 9 42	2.00	.10	0.10	.100	2000	50	200	3.0
12	41 43 45	119 1 5	2.00	.50	0.30	.100	700	50	70	3.0
13	41 42 29	119 1 46	1.50	.70	0.30	.100	500	30	70	3.0
14	41 41 42	119 1 45	2.00	.50	0.30	.100	500	30	50	2.0
15	41 40 23	119 0 34	1.50	.30	1.00	.200	1000	10 L	500	2.0
16	41 36 50	119 10 9	5.00	.50	0.50	.500	300	15	5000	3.0
17	41 44 57	119 11 12	2.00	.05	0.05 L	.200	300	50	20	3.0
18	41-44 57	119 11 6	2.00	.30	0.20	.200	500	50	100	3.0
19	41 43 19	119 11 12	0.50	.20	0.10	.070	150	10 L	100	2.0
20	41 43 15	119 11 20	0.05	.02	0.05 L	.500	50	10 L	70	2.0
21	41 40 38	119 10 26	2.00	.15	0.30	.200	700	50	500	3.0
22	41 40 42	119 10 32	2.00	.30	0.50	.300	500	30	700	2.0
23	41 40 59	119 10 36	2.00	.05	0.07	.100	500	50	150	5.0
24	41 41 3	119 10 50	2.00	.05	0.07	.070	300	50	300	5.0
25	41 41 12	119 10 55	1.50	.05	0.05 L	.070	300	50	150	5.0
26	41 41 15	119 11 8	1.00	.05	0.07	.070	200	50	500	5.0
27	41 41 27	119 12 55	2.00	.30	0.50	.300	500	30	700	2.0

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S=CO	S=CR	S=CU	S=LA	S=MO	S=NB	S=NI	S=PB	S=SB	S=SC	S=SN	S=SR	S=V	S=W
26	10	10 L	5	100	5 L	20 L	5	15	100 N	7	10 N	100 L	20	50 N
27	5 N	10 L	5 L	50	5 N	20 L	5	10	100 L	5	10 N	100 L	10	50 N
28	10	30	20	30	5 N	20 L	10	20	100 N	15	10 N	100	70	50 L
29	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 N	30	50 N
30	5 N	10 N	5 L	20 L	5 N	20 L	5 L	10 L	100 N	5 N	10 N	300	10 L	50 N
30	5 N	10 N	5 L	20 L	5 N	20 L	5 L	10 L	100 N	5	10 N	300	10 L	50 N
31	15	10 L	20	50	10	20 L	15	20	100 N	20	10 N	300	200	50 N
32	5	10 L	10	50	10	20 L	5	20	100 N	10	10 N	100 L	50	50 N
33	5 L	10 L	5	100	5 L	20 L	10	20	100 N	5 L	10 N	100 L	10	50 N
					ROCK SPRING TABLE 15 MINUTE QUADRANGLE									
1	5 L	10 N	5 L	70	5 N	20 L	5 L	20	100 N	5	10 N	100 N	10 L	50 N
2	5 N	10 L	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 L	10 L	50 N
3	5 N	10 L	5 L	20 L	5 N	20 L	5 L	10 L	100 N	5 N	10 N	100 L	10 L	50 N
3	15	10 L	10	100	5 N	20 L	5	20	100 N	10	10 N	100	70	50 N
4	5 N	10 L	5 L	20 L	5 N	20 L	5 L	10 L	100 N	5 N	10 N	100 L	10	50 N
5	5	10 N	5	70	5 N	20 L	5 L	30	100 N	7	10 N	200	30	50 N
6	5 L	10	20	50	5 N	20 L	5 L	50	100	5 L	10 N	100	30	50
7	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 N	150	5 L	10 N	100 L	10	50 N
8	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 N	10	50 N
9	5 L	10 N	5	50	5 N	20 L	5 L	20	100 N	5	10 N	100 L	10	50 N
9	5 L	10 N	5 L	70	5 N	20 L	5 L	20	100 N	10	10 N	100 L	20	50 N
10	5 L	10 L	5	20 L	5 N	20 L	5 L	10 N	100 N	5 L	10 N	100 N	50	50 N
10	5 L	10 N	5 L	20 L	5 N	50	5 L	10 L	100 N	5	10 N	100 N	15	50 N
11	5 L	10 L	7	50	5 N	20	5 L	20	100 N	5	10 N	100 L	100	50 N
12	5 L	10 L	5	50	5	20 L	5 L	30	100 N	5	10 N	100 L	20	50 N
13	5 L	10 L	5 L	50	5	20 L	5 L	20	100 N	5	10 N	100 L	20	50 N
14	5 L	10 L	5 L	50	5 N	20 L	5 L	20	100 N	5	10 N	100 L	20	50 N
15	5 N	10 L	5	100	5 N	20 L	5 L	20	100 N	7	10 N	500	10	50 N
16	5	10 L	7	50	5 N	20 L	7	20	100 N	20	10 N	300	50	50 N
17	5 L	10 L	5 L	70	5 N	20 L	5 L	30	100 N	5	10 N	100 L	30	50 N
18	5 L	10 L	5 L	70	5 N	20 L	5 L	20	100 N	10	10 N	300	50	50 N
19	5 L	10 L	5 L	50	5 N	20 L	5 L	50	100 N	5 L	10 N	100	30	50 N
20	5 L	10 L	5 L	20 L	5 N	20 L	5 L	10	100 N	5	10 N	100 L	10	50 N
21	5 L	10 L	15	50	5 N	20 L	5 L	20	100 N	5 L	10 N	100	30	50 N
22	5 L	10 L	5	50	5 L	20 L	5	20	100 N	5	10 N	100	30	50 N
23	5 L	10 L	5	50	5 N	20 L	5 L	50	100 N	5 L	10	100 L	10	50 N
24	5 L	10 L	5	70	5 N	20 L	5 L	50	100 N	5 L	10	100 L	20	50 N
25	5 L	10 L	5	50	5 L	20 L	5 L	30	100 N	5 L	10	100 L	20	50 N
26	5 L	10 L	5 L	70	5 L	20 L	5 L	20	100 N	5 L	10 L	100	10	50 N
27	5 L	10 L	5	70	5 L	20 L	5 L	20	100 N	10	10 N	200	50	50 N

SAMPLE	S-Y	S-ZN	S-ZR	AA-AU	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	CM-W	AC-TH	AC-U
26	30	200 N	300	.05L	0,07	15,60	,4 L	1	20	20 L	0,0000 B	0,0000 B
27	30	200 N	300	.05L	0,07	3,50	,4 L	25	20	20 L	0,0000 B	0,0000 B
28	50	200 N	300	.05L	0,12	12,10	,5	1	30	20 L	0,0000 B	0,0000 B
29	10 L	200 N	30	.05N	0,07	12,20	,4 N	1	20	20 N	0,0000 B	1,9900
30	10 L	200 N	10 L	.05L	0,32	0,60 L	,4 L	1 N	30	20 L	0,0000 B	0,0000 B
30	10 L	200 N	10 L	.05L	0,64	1,00	,4	1 N	60	20 L	0,0000 B	0,0000 B
31	50	200 N	200	.05N	0,10	91,00	,9	2	30	20 N	0,0000 B	4,4000
32	70	200 N	300	.05N	0,04	46,00	,5	1 L	10	20 N	24,7000	10,5800
33	50	200 N	150	.05L	0,07	12,10	,4 L	1	20	20 L	0,0000 B	0,0000 B
						ROCK SPRING TABLE 15 MINUTE QUADRANGLE						
1	50	200 N	200	.05N	0,05	4,20	,4 L	2	20	20 L	0,0000 B	0,0000 B
2	10 L	200 N	20	.05N	1,00	3,20	,4 L	5	80	20 L	0,0000 B	0,0000 B
3	10 L	200 N	20	.05N	0,24	1,70	,4 L	1 L	40	20 L	0,0000 B	0,0000 B
3	100	200 N	30	.05N	0,20	6,50	,4 L	1	40	20 L	0,0000 B	0,0000 B
4	10 L	200 N	10 L	.05N	0,06	1,70	,4 L	1 L	20	20 L	0,0000 B	0,0000 B
5	50	200 N	200	.05N	0,15	12,50	,4 L	1	20	20 L	0,0000 B	0,0000 B
6	100	200	300	.05N	0,64	51,00	1,0	5	30	20 L	0,0000 B	0,0000 B
7	10 L	200 N	20	.05N	0,10	2,00	,4 L	3	10	20 L	0,0000 B	0,0000 B
8	10 L	200 N	200	.05N	0,17	5,00	,4 L	1	10	20 L	0,0000 B	0,0000 B
9	50	200 N	300	.05N	1,48	7,30	,4 L	1	20	20 L	0,0000 B	0,0000 B
9	50	200 N	300	.05N	0,94	9,90	,4	2	10	20 L	0,0000 B	0,0000 B
10	10 L	200 N	100	.05N	1,04	7,90	,4 L	1	10	20 L	0,0000 B	0,0000 B
10	50	200 N	1000 G	.05N	54,00	1,70	,4 L	2	10	20 L	0,0000 B	0,0000 B
11	50	200 N	300	.05N	0,36	20,20	,5	15	30	20 L	0,0000 B	0,0000 B
12	50	200 N	200	.05N	0,05	14,40	,4 N	1 L	10	20 N	18,8000	7,6400
13	70	200 N	300	.05N	0,02	16,30	,4	1 N	10	20 N	23,7200	7,9600
14	50	200 N	200	.05N	0,02 N	13,60	,4	1 N	10	20 N	20,6700	6,6000
15	50	200 N	300	.05L	0,54	16,10	,7	1 L	20	20 L	17,9200	3,3300
16	50	200 N	150	.05N	0,06	56,00	,9	1 L	10 L	20 N	8,3100	6,0400
17	70	200 N	1000	.05L	1,00	8,70	,4 L	2	20	20 L	0,0000 B	0,0000 B
18	70	200 N	500	.05L	2,00	14,70	,4 L	4	30	20 L	0,0000 B	0,0000 B
19	50	200 N	300	.05L	5,20	8,20	,4 L	5	50	20 L	0,0000 B	0,0000 B
20	70	200 N	1000 G	.05L	36,00	0,06 L	,4 L	2	20	20 L	0,0000 B	0,0000 B
21	50	200 N	300	.05L	0,46	21,60	,4 L	1	10	20 L	0,0000 B	0,0000 B
22	50	200 N	200	.05L	1,00	8,90	,4 L	1 L	10	20 L	0,0000 B	0,0000 B
23	100	200 N	300	.05L	0,02	17,00	,4 L	1 L	20	20 L	0,0000 B	0,0000 B
24	100	200 N	300	.05L	0,05	14,40	,4 L	1	10	20 L	0,0000 B	0,0000 B
25	100	200 N	300	.05L	0,03	17,30	,4 L	1	20	20 L	0,0000 B	0,0000 B
26	100	200 N	300	.05L	0,03	26,60	,4 L	1	10	20 L	0,0000 B	0,0000 B
27	30	200 N	200	.05L	0,02	10,90	,4 L	1	10	20 L	0,0000 B	0,0000 B

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE
28	41 41 9	119 12 51	1.50	.20	0.50	.200	300	20	1000	2.0
29	41 41 0	119 13 26	2.00	.50	1.00	.300	700	20	1000	2.0
30	41 41 5	119 13 54	2.00	.50	0.70	.300	700	20	1000	2.0
31	41 43 46	119 6 51	5.00	.70	1.00	.700	5000	20	1000	2.0
32	41 43 41	119 6 56	5.00	.70	1.00	.500	500	20	1500	3.0
33	41 43 45	119 7 3	15.00	.05	0.20	.030	5000 G	10 L	500	10.0
		SAGE HEN HILLS 7.5 MINUTE QUADRANGLE								
1	41 53 58	119 21 42	5.00	.10	0.07	.200	1000	100	50	3.0
2	41 55 41	119 17 11	5.00	.10	0.15	.200	700	30	200	3.0
3	41 55 38	119 15 37	5.00	.10	0.10	.150	200	20	150	3.0
4	41 55 13	119 15 23	1.00	.10	0.10	.070	500	20	200	2.0
5	41 55 27	119 15 26	1.00	.10	0.10	.100	500	20	100	2.0
6	41 54 14	119 15 3	1.00	.10	0.15	.100	200	20	150	2.0
		SWAN LAKE 7.5 MINUTE QUADRANGLE								
1	41 46 5	119 29 12	0.30	.07	0.07	.020	70	10 L	150	3.0
2	41 48 5	119 27 50	0.30	.02	0.07	.015	50	10	300	2.0
3	41 51 11	119 27 37	5.00	2.00	2.00	.500	1500	10 L	1000	1.0 L

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-CU	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
28	5 L	10 L	15	50	5 N	20 L	5 L	20	100 N	10	10 N	300	50	50 N
29	5 L	10 L	7	70	5 N	20 L	5 L	20	100 N	10	10 N	300	50	50 N
30	5 L	10 L	7	70	10	20 L	5	20	100 N	10	10 N	300	50	50 N
31	20	30	15	50	10	20 L	20	20	100 N	20	10 N	300	200	50 N
32	5	10	10	100	5 N	20 L	5 L	20	100 N	20	10 N	300	100	50 N
33	5 N	10 L	5	20 L	5 L	20 L	5 L	10	100 N	5 L	10 N	100	100	50 N
SAGE HEN HILLS 7.5 MINUTE QUADRANGLE														
1	5 N	10 L	5 L	70	5 N	20 L	5 L	30	100 N	10	10 N	100 L	10	50 N
2	5 N	10 L	5	100	5 N	20 N	5 L	20	100 N	10	10 N	100 L	70	50 N
3	5 L	10 L	5 L	100	5 N	20 N	5 L	15	100 N	5	10 N	100 L	20	50 N
4	5 L	10 L	10	150	5 N	20 L	5	30	100 N	5	10 N	100 L	10	50 N
5	5 L	10 L	5	100	10	20 L	5 L	20	100 N	5	10 N	100 L	10	50 N
6	5 L	10 L	5	70	5 N	20 L	5	20	100 N	5 L	10 N	100 L	10	50 N
SWAN LAKE 7.5 MINUTE QUADRANGLE														
1	5 N	10 N	5 L	20 L	5 N	20 L	5 L	10 N	100 N	5 N	10 N	100 N	50	50 N
2	5 L	10 N	5 L	20 N	5 N	20 L	5 L	10 N	200	5 N	10 N	100 L	30	50 N
3	50	100	50	50	5 N	20 L	70	10 L	100 N	30	10 N	300	200	50 N

ROCK SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-Y	S-ZN	S-ZR	AA-AU	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	CM-W	AC-TH	AC-U
28	30	200 N	200	.05L	0,05	18,10	,4 L	1	20	20 L	0,0000 B	0,0000 B
29	50	200 N	200	.05L	0,02	14,00	,4 L	2	20	20 L	0,0000 B	0,0000 B
30	50	200 N	200	.05L	0,03	11,30	,4 L	2	20	20 L	0,0000 B	0,0000 B
31	50	200 L	200	.05N	11,00	45,00	1,8	3	10	20 N	11,0100	9,2700
32	100	200 L	200	.05N	1,00	50,00	1,9	1 L	10 L	20 N	0,0000 B	0,0000 B
33	30	200	100	.05N	0,13	72,00	3,5	2	500	20 N	7,2700	6,3600
						SAGE HEN HILLS 7,5 MINUTE QUADRANGLE						
1	50	200 N	1000	.05N	0,12	14,50	,4 L	1 L	20	20 L	0,0000 B	0,0000 B
2	70	200 N	1000	.05N	0,18	19,70	,5	1 L	30	20 L	0,0000 B	0,0000 B
3	70	200 N	1000	.05N	0,17	4,00	,4	1	20	20 L	0,0000 B	0,0000 B
4	30	200 N	300	.05L	0,03	23,00	,4 L	3	10	20 L	0,0000 B	0,0000 B
5	50	200 N	300	.05L	0,03	21,30	,4 L	1	10	20 L	0,0000 B	0,0000 B
6	30	200 N	300	.05L	0,02	13,30	,4 L	1 L	10	20 L	0,0000 B	0,0000 B
						SWAN LAKE 7,5 MINUTE QUADRANGLE						
1	10 L	200 N	50	.05N	0,06 N	4,40	,7	1 L	10 L	20 N	0,0000 B	0,0000 B
2	50	200 L	10 L	.05N	0,18	2,70	,4 L	60	20	20 L	0,0000 B	0,0000 B
3	30	200 N	100	.05N	0,05	48,00	3,0	1 N	10	20 N	0,0000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
BADGER MOUNTIAN NW 7.5 MINUTE QUADRANGLE																
1	41 44 21	119 22 55	5.0	2.00	3.00	1.00	1000	20	1000	1.0	20	20	30	20	5 N	20 L
2	41 44 3	119 22 51	7.0	2.00	3.00	1.00	1000	20	1000	1.0	30	20	50	20	5 N	20 L
3	41 44 26	119 22 36	5.0	2.00	2.00	1.00	1500	20	1000	1.0	10	10	10	50	5 N	20 L
4	41 42 43	119 22 35	10.0	2.00	2.00	1.00	1000	20	700	1.0	20	50	50	20	5 N	20 L
5	41 42 47	119 22 59	10.0	2.00	2.00	1.00	1000	50	700	1.0 L	20	50	30	20	5 N	20 L
6	41 42 19	119 23 12	7.0	1.50	2.00	1.00	1000	30	700	1.0	20	50	30	50	5 N	20 L
7	41 42 36	119 24 10	7.0	1.00	1.00	.50	1000	20	1000	1.0	10	50	30	50	5 N	20 L
8	41 42 1	119 25 20	3.0	1.50	1.50	.30	500	20	500	1.0	10	10	20	50	5 N	20 L
9	41 41 21	119 25 9	5.0	1.00	1.00	.50	1000	30	700	1.0	20	50	50	50	5 N	20 L
10	41 40 33	119 25 18	5.0	1.00	1.00	.70	1000	20	1000	1.0	15	50	30	50	5 N	20 L
11	41 39 21	119 26 29	7.0	1.00	1.00	.70	1000	20	700	1.0	15	50	30	50	5 N	20 L
12	41 39 51	119 25 44	5.0	.70	1.00	.70	700	20	700	1.0	15	50	30	50	5 N	20 L
13	41 39 20	119 25 18	5.0	1.00	.70	.50	1000	20	700	1.5	20	50	20	50	5 N	20 L
14	41 38 53	119 24 56	5.0	1.00	1.00	.30	700	30	500	1.0	7	30	15	50	5 N	20 L
15	41 39 1	119 24 33	7.0	1.00	1.00	1.00	1000	20	500	1.0	7	50	20	50	5 N	20 L
16	41 39 14	119 23 58	5.0	.70	.70	.50	1000	20	500	5.0	15	50	50	100	5 N	20 L
17	41 40 1	119 23 17	5.0	.70	1.00	.50	1500	20	500	2.0	10	50	15	50	5 N	20 L
18	41 40 5	119 23 8	7.0	1.00	.70	.70	1000	20	500	2.0	10	50	30	50	5 N	20 L
19	41 40 14	119 22 44	5.0	1.00	1.00	.50	1500	20	500	2.0	5	20	30	50	5 N	20 L
20	41 40 6	119 22 50	5.0	.70	1.00	.50	700	30	700	2.0	10	50	30	50	5 N	20 L
21	41 38 2	119 24 12	2.0	.50	.70	.30	1000	20	500	1.5	10	30	10	50	5 N	20 L
22	41 37 48	119 24 7	10.0	2.00	1.50	1.00	1500	20	700	1.0	70	30	30	50	5 N	20 L
23	41 37 37	119 26 25	5.0	1.00	2.00	1.00	1500	30	1000	2.0	20	50	30	50	5 N	20 L
24	41 42 32	119 23 14	5.0	1.50	1.00	.50	700	30	700	1.5	15	30	30	50	5 N	20 L
25	41 40 41	119 25 9	15.0	1.50	1.50	1.00 G	2000	20	1000	1.0 L	50	50	30	50	5 N	20 L
26	41 40 56	119 24 14	5.0	1.00	1.00	.50	1000	20	700	2.0	15	30	30	50	5 N	20 L
27	41 41 18	119 23 11	7.0	1.50	1.50	1.00	1000	20	700	1.5	15	50	30	50	5 N	20 L
28	41 38 54	119 27 9	5.0	1.00	1.00	.50	1500	20	700	1.0	20	70	20	50	5 N	20 L
29	41 38 35	119 27 51	5.0	1.00	1.00	.30	700	30	700	1.5	15	50	30	70	5 N	20 L
30	41 38 40	119 28 32	7.0	1.00	1.50	.50	1000	20	1000	1.0 L	30	70	30	50	5 N	20 L
31	41 38 51	119 28 54	7.0	1.00	1.50	.50	1500	20	1000	1.0	20	50	30	50	5 N	20 L
32	41 38 45	119 29 3	7.0	1.00	1.50	.70	1000	20	700	1.0	20	70	30	50	5 N	20 L
33	41 41 22	119 24 42	5.0	1.00	1.00	.50	500	20	700	1.0	15	50	20	50	5 N	20 L
34	41 42 1	119 26 17	7.0	1.50	2.00	1.00	1500	10	1000	1.0 L	50	70	30	50	5 N	20 L
35	41 42 20	119 26 18	10.0	1.50	2.00	1.00	1500	10	700	1.0 L	50	70	50	50	5 N	20 L
36	41 42 29	119 26 35	7.0	1.50	2.00	1.00	1000	20	700	1.0 L	30	50	30	70	5 N	20 L
37	41 42 57	119 27 6	7.0	1.50	1.50	1.00	500	20	500	1.0	20	50	30	50	5 N	20 L
38	41 43 36	119 27 37	5.0	1.00	2.00	.50	1000	20	700	1.0	20	50	30	50	5 N	20 L
39	41 44 0	119 27 34	10.0	1.50	2.00	1.00	1500	10	700	1.0 L	50	70	50	50	5 N	20 L
40	41 44 25	119 28 14	5.0	1.00	1.50	.50	1000	20	500	1.0	15	50	20	50	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
BADGER MOUNTIAN NW 7.5 MINUTE QUADRANGLE																
1	50	10	10	10 N	300	200	20	200 N	200	0.06	46.0	.60	1.0 N	20	0.000 B	0.0000 B
2	50	10	20	10 N	300	200	20	200 N	200	0.02	44.0	.60	1.0 N	10	0.000 B	0.0000 B
3	10	20	15	10 N	300	200	20	200 N	1000	0.03	16.0	.40 L	1.0 L	20	0.000 B	0.0000 B
4	50	20	20	10 N	500	200	30	200 N	200	0.04	52.0	.60	1.0 N	10	0.000 B	0.0000 B
5	50	20	20	10 N	500	300	20	200 N	200	0.03	43.0	.50	1.0 N	40	0.000 B	0.0000 B
6	50	20	15	10 N	500	200	20	200 N	200	0.04	39.0	.50	1.0 N	20	0.000 B	0.0000 B
7	20	20	15	10 N	300	150	20	200 N	300	0.05	28.0	.40	1.0 N	40	0.000 B	0.0000 B
8	10	20	10	10 N	200	150	20	200 N	500	0.03	32.0	.90	1.0 L	60	0.000 B	0.0000 B
9	50	20	15	10 N	500	200	20	200 N	200	0.04	42.0	.50	1.0 N	40	0.000 B	0.0000 B
10	20	20	15	10 N	500	150	30	200 N	300	0.10	33.0	.40	1.0 N	40	0.000 B	0.0000 B
11	30	20	20	10 N	500	150	50	200 N	300	0.06	32.0	.40	1.0 N	40	0.000 B	0.0000 B
12	20	20	20	10 N	500	100	30	200 N	300	0.02 L	33.0	.50	1.0 L	20	0.000 B	0.0000 B
13	20	20	15	10 N	500	100	30	200 N	1000	0.02	21.0	.80	1.0 N	20	0.000 B	0.0000 B
14	15	20	10	10 N	300	70	50	200 N	200	0.02 L	32.0	.40 L	1.0 N	10	0.000 B	0.0000 B
15	15	20	15	10 N	300	200	30	200 N	300	0.03	26.0	.40	1.0 N	20	0.000 B	0.0000 B
16	20	20	15	10 N	300	100	200	200 N	200	0.03	32.0	.40	1.0 L	10	0.000 B	0.0000 B
17	20	20	10	10 N	500	100	20	200 N	200	0.02	27.0	.40	1.0 L	20	0.000 B	0.0000 B
18	20	20	15	10 N	200	100	50	200 N	1000	0.02 L	30.0	.40	1.0 N	20	0.000 B	0.0000 B
19	10	20	10	10 N	200	100	30	200 N	300	0.02 L	32.0	.40	1.0 N	20	0.000 B	0.0000 B
20	20	20	10	10 N	200	100	20	200 N	200	0.05	32.0	.40 L	1.0 L	20	0.000 B	0.0000 B
21	10	15	7	10 N	300	100	30	200 N	200	0.15	28.0	.40	1.0 N	20	0.000 B	0.0000 B
22	100	20	20	10 N	1000	200	50	200 N	300	0.13	47.0	.50	1.0 N	30	0.000 B	0.0000 B
23	20	20	20	10 N	500	100	50	200 N	500	0.05	40.0	.40	1.0 N	30	0.000 B	0.0000 B
24	20	10	15	10 N	500	100	20	200 N	200	0.03	30.0	.50	1.0	20	0.000 B	0.0000 B
25	50	15	20	10 N	500	200	20	200 N	300	0.03	29.0	.40	1.0 N	20	0.000 B	0.0000 B
26	20	15	10	10 N	300	100	20	200 N	300	0.03	21.0	.40 L	1.0 L	20	0.000 B	0.0000 B
27	20	15	15	10 N	300	150	20	200 N	300	0.03	24.0	.40 L	1.0 L	10	0.000 B	0.0000 B
28	20	20	15	10 N	500	100	30	200 N	300	0.04	30.0	.40 L	1.0 L	10	0.000 B	0.0000 B
29	20	30	15	10 N	500	70	50	200 N	300	0.05	29.0	.40 L	1.0 L	10	0.000 B	0.0000 B
30	30	30	20	10 N	700	100	50	200 N	200	0.48	42.0	.40 L	1.0 L	10	0.000 B	0.0000 B
31	20	30	20	10 N	700	200	30	200 N	300	0.05	41.0	.40 L	1.0 L	20	0.000 B	0.0000 B
32	20	20	20	10 N	700	150	30	200 N	300	0.03	44.0	.40 L	1.0 L	10	0.000 B	0.0000 B
33	20	20	20	10 N	500	100	30	200 N	200	0.05	43.0	.40 L	1.0 L	10	0.000 B	0.0000 B
34	50	20	20	10 N	700	200	30	200 N	150	0.02	50.0	.40 L	1.0 L	10	0.000 B	0.0000 B
35	70	10	20	10 N	700	300	30	200 N	150	0.03	45.0	.40 L	1.0 L	10	0.000 B	0.0000 B
36	50	20	20	10 N	500	200	30	200 N	200	0.03	46.0	.40 L	1.0 L	10	0.000 B	0.0000 B
37	30	20	20	10 N	500	150	50	200 N	150	0.03	42.0	.60	1.0 L	10 L	0.000 B	0.0000 B
38	30	20	20	10 N	500	100	30	200 N	150	0.04	38.0	.60	1.0 L	10	0.000 B	0.0000 B
39	100	20	30	10 N	500	300	30	200 N	200	0.02	41.0	.50	1.0 L	10	0.000 B	0.0000 B
40	30	10 L	15	10 N	300	100	20	200 N	100	0.03	37.0	.60	1.0 L	10	0.000 B	0.0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
41	41 44 50	119 28 28	10.0	1.50	1.50	.50	1000	10	700	1.0 L	30	50	30	50	5 N	20 L
42	41 44 30	119 28 46	7.0	2.00	2.00	1.00	1500	20	1000	1.0 L	20	30	20	50	5 N	20 L
43	41 38 21	119 27 59	5.0	.70	1.00	.70	1000	20	700	1.5	15	50	20	50	5 N	20 L
44	41 38 20	119 27 56	7.0	.70	1.00	1.00	1000	20	700	1.5	15	50	30	50	5 N	20 L
45	41 40 56	119 24 14	5.0	1.00	1.00	.70	1500	20	1000	1.0	20	30	30	50	5 N	20 L
46	41 40 55	119 24 11	3.0	.70	1.00	.50	1000	20	700	1.5	15	30	20	50	5 N	20 L
47	41 40 1	119 23 18	5.0	1.00	.70	.70	1500	20	500	2.0	15	150	20	100	5 N	20 L
48	41 40 32	119 26 23	7.0	2.00	2.00	1.00	2000	20	1000	1.0	50	30	50	50	5 N	20 L
		BADGER MOUNTIAN SE 7.5 MINUTE QUADRANGLE														
1	41 36 2	119 22 1	2.0	.50	1.00	.30	500	30	500	2.0	7	50	20	50	5 N	20 L
2	41 37 14	119 21 52	5.0	.50	1.00	.30	700	30	700	2.0	10	50	20	70	5 N	20 L
3	41 37 23	119 22 17	5.0	.70	1.00	.50	1000	30	700	2.0	15	100	20	50	5 N	20 L
4	41 34 54	119 22 26	5.0	.70	1.00	.70	1000	20	700	2.0	15	70	20	70	5 N	20 L
5	41 34 50	119 22 8	5.0	1.00	1.00	.50	1000	20	700	2.0	20	50	15	50	5 N	20 L
6	41 34 59	119 22 14	5.0	.70	1.00	.50	1000	50	700	2.0	15	70	20	70	5 N	20 L
7	41 34 58	119 22 27	5.0	.70	1.00	.50	1500	30	700	2.0	20	50	15	70	5 N	20 L
8	41 34 5	119 22 19	5.0	.70	1.00	.30	2000	30	1000	2.0	30	20	15	70	5 N	20 L
9	41 35 27	119 21 43	5.0	.70	1.00	.50	1000	30	700	2.0	15	100	20	50	5 N	20 L
10	41 35 33	119 20 45	5.0	.70	1.00	.50	1000	30	700	2.0	15	20	30	70	5 N	20 L
11	41 35 8	119 20 25	5.0	.70	1.00	.30	1000	30	700	2.0	20	70	30	70	5 N	20 L
12	41 35 17	119 18 51	5.0	1.00	1.00	1.00	1000	30	1000	2.0	20	50	30	70	5 N	20 L
13	41 35 7	119 18 10	7.0	1.00	1.50	1.00	1000	30	1000	2.0	30	70	30	50	5 N	20 L
14	41 34 23	119 18 0	5.0	.70	1.00	.30	1000	50	700	2.0	20	50	20	70	5 N	20 L
15	41 35 47	119 18 15	5.0	2.00	1.00	.30	1000	30	700	2.0	30	50	30	70	5 N	20 L
16	41 36 1	119 18 24	3.0	.70	1.00	.30	1000	30	700	2.0	15	70	20	70	5 N	20 L
17	41 36 2	119 18 12	3.0	.70	1.00	.30	500	30	700	2.0	10	30	10	70	5 L	20 L
18	41 35 30	119 17 35	3.0	.50	1.50	.30	500	30	700	2.0	10	50	20	50	5 N	20 L
19	41 36 7	119 15 56	3.0	.50	.70	.50	500	30	700	2.0	15	50	20	50	5 N	20 L
20	41 34 17	119 15 34	5.0	.70	1.00	.30	200	30	700	3.0	5	50	30	100	5 N	20 L
21	41 34 18	119 15 51	7.0	.70	1.00	.50	1000	20	700	2.0	20	50	20	50	5 N	20 L
22	41 36 6	119 15 8	3.0	.50	.70	.30	300	30	500	3.0	5	50	15	70	5 N	20 L
23	41 36 2	119 15 8	3.0	.50	1.00	.20	1000	30	500	2.0	10	50	30	70	5 N	20 L
24	41 36 33	119 15 2	5.0	.50	.70	.30	700	30	700	2.0	10	30	20	70	5 N	20 L
25	41 34 26	119 16 26	7.0	1.50	.70	1.00	1500	20	500	1.0	30	70	30	50	5 N	20 L
		BLOWOUT MOUNTIAN 7.5 MINUTE QUADRANGLE														
1	41 39 55	119 15 14	5.0	2.00	1.00	.30	1000	20	700	1.5	10	30	30	50	5 N	20 L
2	41 39 42	119 15 24	5.0	1.50	1.00	.30	700	20	1000	1.5	10	30	20	50	5 N	20 L
3	41 39 50	119 17 21	5.0	.70	.50	.50	1000	20	300	1.5	10	30	20	50	5 N	20 L
4	41 39 33	119 17 44	5.0	1.50	1.00	.30	1000	20	1000	2.0	10	30	20	50	5 N	20 L
5	41 39 52	119 17 32	5.0	1.00	1.00	.30	1000	30	500	2.0	10	30	20	70	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
41	50	20	20	10 N	500	150	20	200 N	100	0,03	36,0	,50	1,0 L	10	0,000 B	0,0000 B
42	30	20	20	10 N	500	100	20	200 N	300	0,03	28,0	,50	1,0 L	20	0,000 B	0,0000 B
43	20	20	20	10 N	300	100	50	200 N	300	0,06	71,0	,40	1,0 N	10	0,000 B	0,0000 B
44	20	20	20	10 N	300	150	50	200 N	300	0,09	25,0	,40	1,0 N	20	0,000 B	0,0000 B
45	20	30	20	10 N	500	100	30	200 N	300	0,12	29,0	,50	1,0	20	0,000 B	0,0000 B
46	20	15	20	10 N	300	70	30	200 N	200	0,03	30,0	,60	1,0 L	10	0,000 B	0,0000 B
47	20	20	20	10 N	300	100	50	200 N	500	0,06	38,0	,50	1,0 L	10	0,000 B	0,0000 B
48	30	20	20	10 N	700	150	30	200 N	300	0,03	28,0	,60	1,0 N	20	0,000 B	0,0000 B
BADGER MOUNTIAN SE 7,5 MINUTE QUADRANGLE																
1	15	20	10	10 N	300	50	30	200 N	200	0,05	25,0	,04 L	1,0	10	0,000 B	0,0000 B
2	20	20	15	10 N	500	100	50	200 N	200	0,04	28,0	,04 L	1,0 N	30	0,000 B	0,0000 B
3	20	20	20	10 N	500	100	50	200 N	300	0,03	39,0	,04 L	1,0 L	20	0,000 B	0,0000 B
4	20	30	20	10 N	300	100	50	200 N	300	0,02	48,0	,04 L	1,0	40	0,000 B	0,0000 B
5	20	20	20	10 N	500	100	30	200 N	100	0,03	42,0	,04 L	1,0	30	0,000 B	0,0000 B
6	20	30	20	10 N	300	100	70	200 N	300	0,05	53,0	,40	1,0	50	0,000 B	0,0000 B
7	20	20	15	10 N	500	100	50	200 N	200	0,03	27,0	,40	1,0	50	0,000 B	0,0000 B
8	20	30	15	10 N	500	100	50	200 N	200	0,03	25,0	,40	1,0 L	40	0,000 B	0,0000 B
9	20	20	15	10 N	300	100	50	200 N	300	0,04	39,0	,04 L	1,0 L	20	0,000 B	0,0000 B
10	30	20	15	10 N	300	100	50	200 N	200	0,04	44,0	,04 L	1,0 N	20	0,000 B	0,0000 B
11	20	20	15	10 N	500	100	70	200 N	300	0,03	41,0	,50	1,0 N	10	0,000 B	0,0000 B
12	30	30	30	10 N	500	200	50	200 N	200	0,04	42,0	,40	1,0 N	30	0,000 B	0,0000 B
13	30	30	30	10 N	500	200	50	200 N	300	0,03	50,0	,50	1,0 N	20	0,000 B	0,0000 B
14	20	20	15	10 N	500	100	50	200 N	300	0,04	26,0	,04 L	1,0 N	20	0,000 B	0,0000 B
15	50	20	20	10 N	500	100	50	200 N	300	0,04	42,0	,40	1,0 N	10	0,000 B	0,0000 B
16	20	50	15	10 N	300	100	50	200 N	300	0,03	44,0	,04 L	1,0 N	10	0,000 B	0,0000 B
17	10	50	10	10 N	500	50	50	200 N	300	0,03	15,0	,04 L	1,0 N	30	0,000 B	0,0000 B
18	15	20	15	10 N	500	70	50	200 N	200	0,03	29,0	,40	1,0 N	20	0,000 B	0,0000 B
19	20	20	15	10 N	300	100	50	200 N	200	0,02	40,0	,04 L	1,0 N	30	0,000 B	0,0000 B
20	20	30	15	10 N	500	70	50	200 N	300	0,09	22,0	,40	1,0 N	10	0,000 B	0,0000 B
21	20	30	15	10 N	500	100	50	200 N	200	0,03	33,0	,40	1,0 L	20	0,000 B	0,0000 B
22	10	20	10	10 N	300	50	70	200 N	300	0,07	30,0	,40 L	1,0 N	10	0,000 B	0,0000 B
23	20	20	10	10 N	300	70	50	200 N	200	0,26	87,0	,80	1,0 L	20	0,000 B	0,0000 B
24	20	20	15	10 N	300	100	50	200 N	200	0,07	31,0	,40	1,0	20	0,000 B	0,0000 B
25	30	20	20	10 N	500	200	20	200 N	100	0,02	31,0	,40	1,0	20	0,000 B	0,0000 B
BLOWOUT MOUNTIAN 7,5 MINUTE QUADRANGLE																
1	20	20	10	10 N	300	100	20	200 N	200	0,05	28,0	,50	1,0 L	20	0,000 B	0,0000 B
2	15	20	10	10 N	500	70	20	200 N	300	0,08	28,0	,50	1,0 L	20	0,000 B	0,0000 B
3	10	20	10	10 N	200	100	20	200 N	300	0,07	23,0	,40	1,0 N	10	0,000 B	0,0000 B
4	10	20	10	10 N	300	100	20	200 N	300	0,05 L	27,0	,50	1,0	20	0,000 B	0,0000 B
5	15	30	10	10 N	300	70	30	200 N	300	0,06	20,0	,40	1,0 N	20	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
6	41 40 23	119 17 53	3.0	1.00	1.00	.30	1000	50	700	2.0	10	20	20	50	5 N	20 L
7	41 40 53	119 17 32	5.0	2.00	1.50	1.00	1000	10	700	1.0	20	30	20	50	5 N	20 L
8	41 40 49	119 17 53	3.0	1.00	1.50	.50	1000	30	700	2.0	7	30	20	50	5 N	20 L
9	41 44 32	119 22 22	5.0	1.00	2.00	1.00	1000	20	700	1.0	10	50	20	50	5 N	20 L
10	41 43 38	119 22 28	10.0	2.00	3.00	1.00 G	1000	20	1000	1.0 L	20	50	50	20	5 N	20 L
11	41 43 17	119 22 14	7.0	2.00	1.00	1.00	1500	20	500	1.0	30	20	50	50	5 N	20 L
12	41 42 55	119 21 41	3.0	1.00	.70	.30	500	30	500	1.5	10	20	20	30	5 N	20 L
13	41 42 47	119 21 34	5.0	1.00	.70	.50	1000	30	500	2.0	15	50	30	50	5 N	20 L
14	41 42 30	119 21 17	3.0	1.00	1.00	.30	500	20	500	1.5	10	20	15	50	5 N	20 L
15	41 42 33	119 21 12	7.0	2.00	1.00	.50	1000	30	500	1.5	15	20	20	50	5 N	20 L
16	41 42 45	119 21 11	5.0	1.50	1.50	.30	1000	20	500	2.0	15	50	20	50	5 N	20 L
17	41 42 26	119 20 48	7.0	1.00	1.00	.50	1500	20	700	2.0	15	50	20	50	5 N	20 L
18	41 42 2	119 20 20	5.0	1.00	1.50	.50	1500	20	700	2.0	20	50	20	50	5 N	20 L
19	41 42 20	119 20 13	3.0	1.50	1.00	.50	500	30	700	2.0	15	50	30	50	5 N	20 L
20	41 41 53	119 20 12	5.0	1.00	.70	.30	700	20	700	2.0	20	50	30	50	5 N	20 L
21	41 41 43	119 19 41	5.0	1.00	.70	.50	1000	20	700	2.0	20	50	20	50	5 N	20 L
22	41 41 38	119 18 48	10.0	1.50	1.00	.70	1000	20	500	2.0	30	50	30	50	5 N	20 L
23	41 40 55	119 18 18	5.0	.70	.70	.50	700	20	500	2.0	20	50	20	50	5 N	20 L
24	41 42 25	119 18 29	5.0	1.00	1.00	.50	1000	20	500	2.0	20	50	20	70	5 N	20 L
25	41 42 38	119 18 2	5.0	1.00	1.00	.50	1000	20	700	2.0	10	50	20	70	5 N	20 L
26	41 42 37	119 17 53	3.0	.70	.70	.30	1000	30	500	5.0	7	50	20	70	5 N	20 L
27	41 43 5	119 18 16	5.0	.70	1.00	.50	1000	20	700	3.0	5	70	30	70	5 N	20 L
28	41 43 17	119 18 30	3.0	1.00	1.00	.30	1500	20	500	2.0	5	50	30	70	5 N	20 L
29	41 43 44	119 18 16	3.0	.70	.70	.30	500	30	500	5.0	5 L	50	20	70	5 N	20 L
30	41 42 39	119 15 55	3.0	.50	.70	.30	700	20	500	2.0	10	50	15	50	5 N	20 L
31	41 43 46	119 18 45	5.0	1.00	1.00	.50	1500	20	700	3.0	20	150	30	70	5 N	20 L
32	41 43 40	119 18 55	5.0	1.00	1.00	.50	1000	20	700	2.0	20	70	30	70	5 N	20 L
33	41 43 27	119 18 6	3.0	.70	1.00	.50	1000	20	700	2.0	20	50	30	70	5 N	20 L
34	41 42 43	119 17 35	5.0	.70	.70	.50	1000	20	500	2.0	15	50	30	70	10	20 L
35	41 42 46	119 16 13	7.0	.70	1.00	.50	1000	30	700	2.0	20	50	30	50	5 N	20 L
36	41 43 46	119 18 32	5.0	1.00	.70	.50	1000	30	700	5.0	15	50	30	70	5 N	20 L
37	41 40 33	119 22 17	5.0	.70	1.00	.50	1000	20	500	2.0	10	50	30	50	5 N	20 L
38	41 43 20	119 22 23	10.0	2.00	1.50	1.00	1500	10	700	1.0 L	30	50	50	20 L	5 N	20 L
39	41 41 39	119 22 23	7.0	1.50	1.50	1.00	1500	20	700	2.0	20	50	20	50	5 N	20 L
40	41 41 53	119 21 42	5.0	1.00	1.00	1.00	1000	20	700	2.0	20	50	30	50	5 N	20 L
41	41 42 8	119 19 0	3.0	1.00	.70	.50	700	20	500	3.0	7	20	15	70	5 N	20 L
42	41 43 26	119 17 44	5.0	1.00	1.00	.70	1000	20	700	3.0	10	30	20	100	5 N	20 L
43	41 42 2	119 19 33	5.0	1.00	1.00	.50	700	30	500	3.0	10	20	30	70	5 N	20 L
44	41 41 48	119 18 24	3.0	.70	.70	.50	700	20	500	3.0	15	50	20	70	5 N	20 L
45	41 40 50	119 18 3	3.0	1.00	.70	.50	700	20	700	2.0	15	30	20	70	5 N	20 L
46	41 41 42	119 17 53	3.0	.70	1.00	.50	700	20	700	2.0	10	30	20	70	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
6	10	30	10	10 N	300	70	20	200 N	300	0.05 L	25.0	.50	1.0 L	20	0.000 B	0.0000 B
7	20	20	15	10 N	500	200	20	200 N	300	0.06	36.0	.40	1.0 L	40	0.000 B	0.0000 B
8	10	20	10	10 N	500	70	20	200 N	300	0.05 L	32.0	.70	1.0 L	20	0.000 B	0.0000 B
9	20	20	10	10 N	300	150	20	200 N	300	0.02	30.0	.40	1.0 N	10	0.000 B	0.0000 B
10	50	20	15	10 N	500	300	20	200 N	500	0.05	39.0	.50	1.0 N	30	0.000 B	0.0000 B
11	70	20	20	10 N	300	100	30	200 N	200	0.04	57.0	.50	1.0 N	30	0.000 B	0.0000 B
12	20	15	10	10 N	200	70	20	200 N	150	0.04	29.0	.40 L	1.0 L	30	0.000 B	0.0000 B
13	20	20	15	10 N	300	70	30	200 N	200	0.02 N	30.0	.40 L	1.0 N	20	0.000 B	0.0000 B
14	10	10	10	10 N	300	50	20	200 N	200	0.02	19.0	.50	1.0 N	30	0.000 B	0.0000 B
15	15	20	15	10 N	500	150	20	200 N	300	0.02	19.0	.40 L	1.0 L	20	0.000 B	0.0000 B
16	20	30	15	10 N	500	100	30	200 N	200	0.02	28.0	.40 L	1.0 L	10	0.000 B	0.0000 B
17	20	30	20	10 N	500	150	30	200 N	200	0.04	35.0	.40 L	1.0	20	0.000 B	0.0000 B
18	20	30	15	10 N	500	100	30	200 N	300	0.04	25.0	.40 L	1.0 L	20	0.000 B	0.0000 B
19	20	20	15	10 N	500	100	50	200 N	300	0.04	31.0	.40 L	1.0 L	30	0.000 B	0.0000 B
20	20	30	15	10 N	500	100	50	200 N	300	0.05	40.0	.40	1.0 L	20	0.000 B	0.0000 B
21	30	20	20	10 N	500	150	50	200 N	200	0.03	28.0	.40 L	1.0 L	20	0.000 B	0.0000 B
22	30	50	20	10 N	300	200	30	200 N	200	0.04	38.0	.40 L	2.0	30	0.000 B	0.0000 B
23	30	20	20	10 N	500	100	30	200 N	200	0.04	27.0	.40 L	1.0	20	0.000 B	0.0000 B
24	20	50	20	10 N	500	100	50	200 N	200	0.06	27.0	.40	1.0	20	0.000 B	0.0000 B
25	7	30	15	10 N	500	100	70	200 N	700	0.09	30.0	.40 L	1.0 L	30	0.000 B	0.0000 B
26	5	50	10	10 L	500	70	70	200 N	700	0.09	28.0	.40	1.0	30	0.000 B	0.0000 B
27	15	50	15	10 N	300	100	70	200 N	700	0.08	27.0	.40	1.0 L	40	0.000 B	0.0000 B
28	15	50	15	10 N	300	100	70	200 N	300	0.06	25.0	.40 L	1.0 L	20	0.000 B	0.0000 B
29	5 L	50	10	10 L	300	70	50	200 N	700	0.07	20.0	.40 L	1.0 N	20	0.000 B	0.0000 B
30	15	15	10	10 N	200	100	70	200 N	300	0.07	38.0	.40	1.0 L	30	0.000 B	0.0000 B
31	5	50	20	10 N	300	150	70	200 N	1000	0.04	44.0	.40	1.0 L	30	0.000 B	0.0000 B
32	20	30	20	10 N	300	100	100	200 N	700	0.03	29.0	.40 L	1.0 L	20	0.000 B	0.0000 B
33	15	50	15	10 N	500	100	70	200 N	700	0.05	28.0	.40	1.0 L	20	0.000 B	0.0000 B
34	10	50	15	10 N	300	100	70	200	1000	0.09	120.0	.40	3.0	20	0.000 B	0.0000 B
35	20	30	15	10 N	500	100	70	200 N	300	0.07	38.0	.40	1.0 L	30	0.000 B	0.0000 B
36	10	50	10	10 N	300	100	100	200 L	1000 G	0.07	64.0	.70	2.0	20	0.000 B	0.0000 B
37	20	20	10	10 N	200	100	20	200 N	200	0.03	37.0	.40	1.0 L	40	0.000 B	0.0000 B
38	70	20	20	10 N	500	200	20	200 N	200	0.02	52.0	.40	1.0	20	0.000 B	0.0000 B
39	20	20	20	10 N	500	200	30	200 N	300	0.03	25.0	.40 L	2.0	20	0.000 B	0.0000 B
40	20	20	20	10 N	500	150	30	200 N	300	0.03	26.0	.40 L	1.0 L	20	0.000 B	0.0000 B
41	5	30	7	10 N	500	100	50	200 N	300	0.04	21.0	.40 L	1.0 L	30	0.000 B	0.0000 B
42	7	30	10	10 N	700	100	70	200 N	500	0.08	29.0	.40 L	1.0 N	20	0.000 B	0.0000 B
43	20	20	10	10 N	300	100	50	200 N	300	0.04	31.0	.40 L	1.0 N	30	0.000 B	0.0000 B
44	20	20	10	10 N	300	100	30	200 N	150	0.07	25.0	.40 L	1.0	20	0.000 B	0.0000 B
45	20	20	15	10 N	500	100	30	200 N	150	0.21	28.0	.40 L	4.0	30	0.000 B	0.0000 B
46	10	20	15	10 N	500	100	30	200 N	300	0.04	24.0	.40 L	2.0	20	0.000 B	0.0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
47	41 39 47	119 17 35	5.0	1.00	.70	.50	700	30	700	2.0	15	50	20	100	5 N	20 L
48	41 39 47	119 18 48	3.0	.70	.70	.30	500	30	500	2.0	5 L	50	20	50	5 N	20 L
49	41 38 58	119 18 34	3.0	.70	.70	.50	700	20	500	3.0	10	50	20	100	5 N	20 L
50	41 38 31	119 18 5	5.0	1.00	.70	.50	500	30	500	3.0	10	50	20	100	5 N	20 L
51	41 38 13	119 19 14	5.0	.70	.70	.50	500	20	700	2.0	10	50	30	70	5 N	20 L
52	41 38 48	119 19 42	5.0	1.00	.70	.50	700	30	700	2.0	20	50	20	70	5 N	20 L
53	41 44 29	119 22 14	3.0	.70	.70	.30	500	50	700	2.0	15	50	15	50	5 N	20 L
54	41 44 57	119 15 25	5.0	1.00	1.50	1.00	2000	20	1000	2.0	20	100	30	70	5 N	20 L
55	41 38 58	119 15 29	3.0	.70	.70	.20	300	20	700	1.5	7	30	20	50	5 N	20 L
56	41 41 53	119 21 33	10.0	1.50	1.00	.70	1500	20	700	1.0	20	50	20	50	5 N	20 L
57	41 41 39	119 22 23	5.0	1.00	1.00	.50	1500	20	700	1.5	15	50	20	50	5 N	20 L
		BALD MOUNTIAN 7.5 MINUTE QUADRANGLE														
1	41 48 38	119 32 35	5.0	1.00	1.00	1.00	2000	10	700	1.0	15	70	20	100	5 N	20 L
2	41 49 23	119 32 57	3.0	1.00	1.00	1.00	500	20	1000	1.0	15	50	20	50	5 N	20 L
3	41 49 33	119 32 53	5.0	1.00	1.50	1.00	1000	20	1000	1.0	20	50	20	50	5 N	20 L
4	41 49 54	119 31 35	3.0	1.00	2.00	.50	1000	20	700	1.0	20	100	20	50	5 N	20 L
5	41 49 54	119 31 33	5.0	1.00	1.50	1.00	1500	20	1000	1.0	20	150	30	50	5 N	20 L
6	41 49 41	119 31 26	5.0	1.00	1.00	1.00	1500	20	1500	1.0	20	70	30	50	5 N	20 L
7	41 49 8	119 31 53	10.0	1.00	.70	1.00	5000	10	2000	1.0	70	20	20	70	5 N	20 L
8	41 50 16	119 32 23	5.0	1.00	1.00	1.00	1500	20	700	1.0	50	70	30	50	5 N	20 L
9	41 50 56	119 34 21	3.0	.70	.70	.50	200	30	700	1.0	7	50	20	50	5 N	20 L
10	41 51 6	119 35 17	5.0	1.00	1.00	.50	1000	30	1000	1.5	20	50	30	70	5 N	20 L
11	41 50 57	119 35 48	7.0	1.00	1.00	1.00	1500	10	1500	1.0	20	30	20	50	5 N	20 L
12	41 50 26	119 36 0	5.0	1.00	1.00	1.00	700	10	1500	1.0	10	20	20	50	5 N	20 L
13	41 50 0	119 36 2	5.0	1.00	1.00	1.00	1500	10	1500	1.0	20	20	20	50	5 N	20 L
14	41 50 0	119 35 53	5.0	1.00	1.00	1.00	1000	20	1000	1.5	15	30	20	70	5 N	20 L
15	41 50 39	119 34 29	7.0	1.00	1.50	.50	1000	20	1500	1.0	20	50	30	70	5 N	20 L
16	41 51 30	119 35 52	5.0	.70	1.00	.50	500	30	1000	2.0	10	50	20	70	5 N	20 L
17	41 51 16	119 36 6	5.0	.70	1.00	1.00	700	20	1000	1.0	10	50	20	70	5 N	20 L
18	41 51 5	119 36 11	3.0	.70	1.00	.50	700	20	700	2.0	5 L	30	20	50	5 N	20 L
19	41 51 18	119 35 53	5.0	.70	2.00	1.00	1000	20	1000	1.5	10	30	20	50	5 N	20 L
20	41 51 24	119 36 42	2.0	.50	1.00	.30	700	30	700	2.0	5 L	30	20	50	5 N	20 L
21	41 51 33	119 37 8	5.0	1.00	1.00	.50	500	30	700	2.0	20	50	30	70	5 N	20 L
22	41 51 24	119 37 9	2.0	.50	.70	.20	1500	20	500	2.0	5 L	30	30	50	5 N	20 L
23	41 48 15	119 33 26	5.0	1.00	1.00	.70	700	20	700	1.5	30	100	30	70	5 N	20 L
24	41 48 26	119 33 47	5.0	1.00	1.00	.70	1000	20	1000	1.5	20	50	20	50	5 N	20 L
25	41 48 45	119 34 51	5.0	1.00	1.00	1.00	1500	20	1000	1.5	20	50	20	50	5 N	20 L
26	41 48 47	119 34 24	5.0	1.00	1.00	.70	1000	20	1000	1.5	20	50	20	50	5 N	20 L
27	41 48 35	119 34 29	7.0	1.00	2.00	1.00	2000	20	1000	1.5	15	20	20	50	5 N	20 L
28	41 48 33	119 34 23	7.0	2.00	2.00	.70	1500	30	1000	1.5	20	50	30	50	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
47	5	30	15	10 N	500	100	70	200 N	500	0.03	29.0	.40 L	1.0 L	20	0.000 B	0.0000 B
48	5	15	7	10 N	200	70	30	200 N	100	0.16	31.0	.40	1.0 N	20	0.000 B	0.0000 B
49	15	20	15	10 N	300	100	50	200 N	300	0.06	48.0	.40 L	1.0 N	20	0.000 B	0.0000 B
50	20	30	15	10 N	200	70	70	200 N	200	0.04	29.0	.40 L	1.0 L	30	0.000 B	0.0000 B
51	20	20	20	10 N	300	100	50	200 N	200	0.10	48.0	.40 L	1.0 L	20	0.000 B	0.0000 B
52	20	20	15	10 N	200	100	50	200 N	300	0.03	31.0	.40 L	1.0 L	20	0.000 B	0.0000 B
53	20	20	15	10 N	300	70	30	200 N	150	0.17	21.0	.40 L	1.0	20	0.000 B	0.0000 B
54	20	30	20	10 N	200	100	70	200 N	300	0.06	36.0	.60	1.0 L	20	0.000 B	0.0000 B
55	15	20	10	10 N	300	50	50	200 N	200	0.06	28.0	.40	2.0	20	0.000 B	0.0000 B
56	20	50	20	10 N	500	200	30	200 N	300	0.04	50.0	.50	1.0 L	10	0.000 B	0.0000 B
57	15	30	15	10 N	500	100	30	200 N	300	0.04	27.0	.40	1.0 N	20	0.000 B	0.0000 B
BALD MOUNTIAN 7.5 MINUTE QUADRANGLE																
1	10	20	20	20 L	500	100	30	500 N	300	0.80	41.0	.50	15.0	30	0.000 B	0.0000 B
2	20	20	20	10 N	500	70	30	200 N	300	0.08	26.0	.40 L	1.0 L	10	0.000 B	0.0000 B
3	20	30	20	10 N	500	100	50	200 N	200	0.04	33.0	.40	1.0 L	10	0.000 B	0.0000 B
4	30	15	20	10 N	500	100	30	200 N	200	0.04	21.0	.40	1.0 L	10	0.000 B	0.0000 B
5	50	20	20	20 N	500	150	50	500 N	200	0.04	32.0	.50	1.0 L	10	0.000 B	0.0000 B
6	30	30	20	10 N	500	100	50	200 N	300	1.30	30.0	.50	5.0	20	0.000 B	0.0000 B
7	30	30	20	10 N	300	100	70	200 N	300	0.80	39.0	.50	25.0	50	0.000 B	0.0000 B
8	50	20	20	10 N	500	100	30	200 N	300	0.04	23.0	.50	1.0	10	0.000 B	0.0000 B
9	15	20	20	10 N	500	70	50	200 N	150	0.02	19.0	.40 L	1.0	10	0.000 B	0.0000 B
10	30	30	20	20 N	500	100	50	500 N	200	0.07	36.0	.40	1.0	20	0.000 B	0.0000 B
11	10	30	20	500	700	100	50	500 N	200	0.57	45.0	.40	1.0 N	10	0.000 B	0.0000 B
12	10	20	20	20 L	500	70	50	500 N	200	1.00	34.0	.40	1.0 L	10	0.000 B	0.0000 B
13	10	20	20	10 N	700	100	50	200 N	200	0.46	47.0	.50	1.0 L	10	0.000 B	0.0000 B
14	15	20	20	10 N	500	100	70	200 N	200	0.26	41.0	.40	1.0 L	10	0.000 B	0.0000 B
15	20	20	20	10 N	500	100	70	200 N	300	0.12	53.0	.50	1.0 L	10	0.000 B	0.0000 B
16	20	20	20	10 N	300	70	50	200 N	200	0.31	37.0	.40	1.0 L	10	0.000 B	0.0000 B
17	20	20	20	10 N	500	70	50	200 N	300	0.06	22.0	.40 L	1.0	10	0.000 B	0.0000 B
18	10	10	20	10 N	200	70	70	200 N	300	0.31	50.0	.40	1.0	20	0.000 B	0.0000 B
19	10	20	15	20 N	500	70	50	500 N	200	0.49	40.0	.40 L	1.0 L	10	0.000 B	0.0000 B
20	10	20	10	10 N	200	50	20	200 N	200	0.19	38.0	.70	1.0 L	10	0.000 B	0.0000 B
21	20	20	20	10 N	300	1000	20	200 N	200	0.07	50.0	.60	1.0	10	0.000 B	0.0000 B
22	7	20	15	10 N	200	50	30	200 N	200	0.07	26.0	.40 L	1.0 L	10	0.000 B	0.0000 B
23	50	10	20	20	500	150	30	500 N	300	0.04	49.0	.40 L	1.0 L	10	0.000 B	0.0000 B
24	15	20	20	10 N	500	100	50	200 N	200	2.00	49.0	.40	15.0	40	0.000 B	0.0000 B
25	15	20	20	20 L	700	100	50	500 N	300	0.34	58.0	.40 L	20.0	60	0.000 B	0.0000 B
26	20	20	20	20 L	500	100	50	500 N	200	0.07	59.0	.40	1.0 L	10	0.000 B	0.0000 B
27	20	20	20	10 N	500	100	50	200 N	300	1.20	62.0	.40	15.0	60	0.000 B	0.0000 B
28	50	20	20	20 L	500	150	30	500 N	300	0.29	29.0	.50	10.0	20	0.000 B	0.0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
29	41 48 32	119 34 36	7.0	1.00	2.00	1.00	1500	20	1500	1.5	20	20	20	50	5 N	20 L
30	41 48 24	119 34 51	7.0	1.00	1.00	1.00	1500	20	1500	1.5	20	30	20	50	5 N	20 L
31	41 48 26	119 34 40	5.0	1.50	1.00	.50	1500	20	1500	3.0	7	20	10	70	5 N	20 L
32	41 48 38	119 34 59	7.0	1.00	1.00	1.00	2000	20	1500	1.5	10	20	20	50	5 N	20 L
33	41 48 21	119 35 3	7.0	1.00	1.00	.50	2000	20	1000	2.0	50	50	20	50	5 N	20 L
34	41 48 28	119 35 12	7.0	1.00	1.00	1.00	1500	15	1500	1.0	50	70	30	70	5 N	20 L
35	41 48 55	119 35 26	7.0	1.00	1.00	.70	1500	20	1500	2.0	20	30	30	50	5 N	20 L
36	41 48 52	119 35 38	5.0	.70	1.00	1.00	1500	15	1000	1.5	20	50	20	50	5 N	20 L
37	41 48 46	119 35 42	5.0	1.00	1.00	1.00	700	20	1500	1.5	15	30	20	50	5 N	20 L
38	41 48 25	119 35 53	5.0	1.00	1.00	1.00	1000	20	1500	1.5	20	70	20	50	5 N	20 L
39	41 48 24	119 36 28	7.0	1.00	1.00	1.00 G	1500	20	1500	1.0	20	20	20	50	5 N	20 L
40	41 48 42	119 36 50	7.0	1.00	1.50	1.00	1500	15	1500	1.0	20	20	20	50	5 N	20 L
41	41 48 33	119 37 4	10.0	1.00	1.00	1.00	2000	15	1000	1.0 L	50	20	30	50	5 N	20 L
42	41 48 29	119 36 45	7.0	1.00	1.00	1.00	1500	20	1500	1.0	20	20	30	50	5 N	20 L
43	41 48 15	119 36 47	5.0	1.00	1.00	1.00	700	20	1500	1.0	20	50	20	50	5 N	20 L
44	41 48 0	119 37 19	5.0	1.00	1.00	.50	300	30	1000	2.0	5	50	30	70	5 N	20 L
45	41 48 56	119 31 57	5.0	1.00	1.00	.70	1000	30	1000	2.0	20	50	30	50	5 N	20 L
46	41 48 42	119 31 58	7.0	1.50	1.50	1.00	1500	20	1500	1.0	30	70	20	50	5 N	20 L
47	41 48 42	119 32 16	5.0	1.50	1.50	1.00	1500	20	1500	1.5	10	50	20	50	5 N	20 L
48	41 48 2	119 32 18	10.0	1.50	2.00	1.00 G	1500	15	700	1.0	30	70	30	50	5 N	20 L
49	41 48 39	119 33 2	10.0	1.00	2.00	1.00 G	1500	20	1500	1.0	20	50	30	50	5 N	20 L
50	41 50 59	119 37 18	5.0	.30	.50	.30	500	20	700	2.0	7	30	15	70	5 L	20 L

BIG SPRING BUTTE 15 MINUTE QUADRANGLE

1	41 52 20	119 2 40	5.0	1.00	1.50	1.00	2000	50	1500	1.5	20	20	15	70	10	20 L
2	41 52 11	119 2 32	3.0	.15	2.00	.50	2000	20	2000	2.0	20	10	7	50	10	20 L
3	41 50 30	119 1 8	2.0	.30	1.00	.50	700	30	1500	2.0	15	20	7	100	10	20 L
4	41 50 7	119 4 31	3.0	.50	1.50	.70	700	30	1500	1.5	15	50	10	50	10	20 L
5	41 48 45	119 5 32	7.0	.70	2.00	1.00	1000	50	1000	1.5	20	70	15	70	15	20 L
6	41 47 2	119 6 47	7.0	1.00	2.00	1.00	1500	30	1000	1.5	20	70	15	70	5 L	20 L
7	41 46 33	119 7 9	3.0	.30	.30	.20	700	100	200	3.0	5 L	10 L	5	70	5 N	20 L
8	41 46 4	119 7 26	5.0	1.00	1.00	.70	1500	30	500	1.5	10	20	15	50	5 N	20 L
9	41 45 59	119 7 14	5.0	1.00	1.00	.50	1500	50	500	2.0	10	10	10	50	5 N	20 L
10	41 46 24	119 6 45	7.0	1.00	1.00	1.00	1000	30	500	2.0	15	50	15	50	5 N	20 L
11	41 46 37	119 6 27	10.0	1.00	1.00	1.00	1000	50	500	2.0	15	50	15	70	5 N	20 L
12	41 47 30	119 5 44	5.0	1.00	2.00	.70	1000	50	700	2.0	15	30	20	50	10	20 L
13	41 49 4	119 3 2	5.0	1.00	1.50	1.00	1000	30	1000	2.0	15	50	15	50	5 L	20 L
14	41 45 28	119 8 17	3.0	.70	1.00	.50	1000	20	700	1.0	15	50	20	50	5 N	20 L
15	41 45 5	119 8 29	3.0	.50	1.00	.50	1000	20	700	1.0	15	50	20	50	5 N	20 L
16	41 57 28	119 1 18	3.0	.70	1.00	1.00	1000	20	1000	1.0	20	70	30	70	5 N	20 L
17	41 52 22	119 14 57	3.0	.70	1.00	.50	1000	70	300	2.0	20	20	10	70	5 L	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
29	20	30	20	20	500	100	50	500 N	300	1,75	46,0	,40 L	4,0	30	0,000 B	0,0000 B
30	20	20	20	10 N	500	100	50	200 N	300	2,30	45,0	,40 L	15,0	100	0,000 B	0,0000 B
31	5 L	15	20	10 N	200	50	50	200 N	300	3,50	24,0	,40 L	60,0	10	0,000 B	0,0000 B
32	10	20	20	20 N	500	150	100	500 N	200	4,20	49,0	,40 L	10,0	20	0,000 B	0,0000 B
33	50	20	20	0 B	200	100	30	0 B	200	14,00	28,0	,50	5,0	20	0,000 B	0,0000 B
34	20	30	30	10 N	500	100	50	200 N	300	95,00 G	42,0	,40	4,0	10	0,000 B	0,0000 B
35	20	20	20	20 N	500	100	50	500 N	200	0,88	60,0	,40 L	1,0 L	10	0,000 B	0,0000 B
36	20	20	20	10 N	500	100	50	200 N	200	1,20	60,0	,40 L	1,0 L	20	0,000 B	0,0000 B
37	20	30	20	10 N	500	100	100	200 N	300	1,40	41,0	,40 L	3,0	30	0,000 B	0,0000 B
38	20	20	20	10 N	500	100	50	200 N	300	26,00	29,0	,40 L	2,0	20	0,000 B	0,0000 B
39	20	20	30	10 N	700	100	50	200 N	200	5,40	58,0	,80	1,0 L	10	0,000 B	0,0000 B
40	20	20	20	10 N	700	100	50	200 N	300	0,40	57,0	,40	1,0 N	10	0,000 B	0,0000 B
41	20	30	30	20 N	500	200	30	500 N	150	0,62	64,0	,40	1,0 N	20	0,000 B	0,0000 B
42	20	30	20	20 L	500	150	50	500 N	300	8,40	150,0	,50	1,0 N	10	0,000 B	0,0000 B
43	20	30	20	50	500	100	50	500 N	300	2,40	31,0	,40 L	1,0 L	30	0,000 B	0,0000 B
44	20	20	20	10 N	300	70	50	200 N	200	1,56	19,0	,40 L	1,0 L	20	0,000 B	0,0000 B
45	30	20	20	20 N	700	150	50	500 N	300	7,80	47,0	,40	10,0	10	0,000 B	0,0000 B
46	30	30	20	20 L	700	100	50	500 N	300	1,40	40,0	,40 L	5,0	10	0,000 B	0,0000 B
47	20	20	20	10 N	700	100	50	200 N	300	1,24	50,0	,40 L	10,0	20	0,000 B	0,0000 B
48	50	15	20	10 N	500	150	20	200 N	300	0,20	35,0	,40	1,0 L	10	0,000 B	0,0000 B
49	20	20	20	10 N	500	150	50	200 N	300	0,05	55,0	,40 L	1,0 L	20	0,000 B	0,0000 B
50	20	20	20	10 N	200	50	70	200 N	300	0,15	57,0	,40	1,0 N	40	0,000 B	0,0000 B
BIG SPRING BUTTE 15 MINUTE QUADRANGLE																
1	15	30	15	10 N	500	150	50	200 N	300	0,02	20,0	,50	1,0	50	0,000 B	0,0000 B
2	10	30	10	10 N	500	50	30	200 N	200	0,03	15,0	,40	1,0 N	20	0,000 B	0,0000 B
3	5	30	15	10 N	500	100	50	200 N	300	0,02	11,0	,40 L	1,0 N	40	10,560	4,6300
4	10	30	15	10 N	500	100	30	200 N	200	0,02	22,0	,50	1,0 N	10	8,270	3,0900
5	20	30	20	10 N	500	100	50	200 N	300	0,03	30,0	,40	1,0 L	10 L	12,590	4,6200
6	20	30	20	10 N	500	150	50	200 N	500	0,02	29,0	,40	1,0 L	10 L	11,100	3,5600
7	5 L	50	5	10 N	100	20	70	200 N	300	0,02	16,0	,40 L	1,0 L	10	23,100	8,0200
8	10	20	5	10 N	300	70	20	200 N	500	0,05	28,0	,50	1,0 L	20	16,070	5,2000
9	5	20	5	10 N	300	70	50	200 N	300	0,02	25,0	,40 L	1,0 L	20	16,330	7,2900
10	20	30	20	10 N	500	150	50	200 N	200	0,05	33,0	,40	1,0 N	10	12,960	3,8600
11	20	50	20	10 N	300	150	50	200 N	300	0,02	22,0	,40 L	1,0 L	20	18,480	6,5000
12	20	20	20	10 N	500	100	50	200 N	300	0,02	30,0	,70	1,0	40	12,200	5,0800
13	20	10	20	10 N	700	100	50	200 N	300	0,05	18,0	,40	1,0 L	20	8,340	3,6800
14	15	20	10	10 N	300	100	20	200 N	200	0,06	25,0	,60	1,0 N	10	10,890	3,9200
15	20	20	10	10 N	300	100	20	200 N	200	0,05 L	26,0	,60	1,0 N	10	10,530	4,3100
16	30	20	15	10 N	300	100	30	200 N	200	0,06	27,0	,40	1,0 N	10	0,000 B	0,0000 B
17	20	50	15	10 N	300	70	30	200 N	200	0,40	25,0	,50	1,0 L	20	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
18	41 58 22	119 14 49	5.0	.70	1.50	.50	1500	20	700	2.0	30	70	30	50	5 N	20 L
19	41 57 20	119 14 8	5.0	1.00	1.00	.50	1500	20	500	2.0	20	50	20	70	5 N	20 L
20	41 57 20	119 14 30	5.0	1.00	1.00	.50	1500	30	500	2.0	30	50	20	70	5 N	20 L
21	41 56 48	119 14 35	5.0	1.00	1.00	.70	1500	30	500	2.0	30	70	30	50	5 N	20 L
22	41 57 3	119 14 17	3.0	.70	1.00	.50	500	20	500	2.0	10	50	30	50	5 N	20 L
23	41 56 3	119 14 27	7.0	1.50	1.00	1.00	1500	30	700	2.0	15	30	30	50	5 N	20 L
24	41 55 24	119 14 35	5.0	1.50	1.00	.70	2000	20	700	1.5	20	50	20	50	5 N	20 L
25	41 52 41	119 1 55	5.0	1.00	1.00	.70	1000	20	700	1.5	20	30	20	50	5 N	20 L
26	41 52 50	119 4 9	5.0	1.50	1.00	.50	500	20	700	1.5	10	20	30	70	5 N	20 L
27	41 52 45	119 3 53	5.0	.70	.70	.50	700	20	700	1.5	10	20	20	70	5 N	20 L
28	41 52 50	119 4 4	5.0	.70	.70	.50	1000	20	500	1.5	10	30	20	70	5 N	20 L
29	41 52 54	119 4 29	5.0	1.00	.70	.50	500	30	700	1.5	10	20	20	70	5 N	20 L
30	41 53 11	119 0 55	5.0	1.00	1.00	1.00	1500	30	500	1.5	20	50	30	50	5 N	20 L
31	41 49 21	119 13 41	3.0	.70	.70	.50	1000	20	500	2.0	20	50	30	50	5 N	20 L
32	41 48 47	119 13 41	3.0	.50	.50	.50	700	20	700	2.0	10	50	20	50	5 N	20 L
33	41 49 9	119 13 13	5.0	.50	.50	.50	1000	20	500	2.0	20	70	20	50	5 N	20 L
34	41 49 4	119 12 36	5.0	.70	.70	.50	1000	20	700	2.0	20	50	20	70	5 N	20 L
35	41 48 42	119 11 39	5.0	.70	.50	.30	1500	30	700	2.0	30	50	20	70	5 N	20 L
36	41 48 47	119 11 8	5.0	.70	1.00	.50	1500	30	500	2.0	20	30	20	70	5 N	20 L
37	41 48 37	119 10 50	3.0	.70	1.00	.30	1500	30	700	2.0	20	50	20	70	5 N	20 L
38	41 48 0	119 10 41	5.0	.70	1.00	.30	1500	30	500	2.0	30	70	30	100	5 N	20 L
39	41 48 46	119 9 59	7.0	1.00	1.00	.50	1500	20	500	2.0	50	70	30	70	5 N	20 L
40	41 48 15	119 9 51	3.0	.70	.70	.30	1000	30	500	2.0	30	70	20	50	5 N	20 L
41	41 47 57	119 8 42	5.0	.70	1.00	.30	1000	30	700	2.0	20	70	30	50	5 N	20 L
42	41 47 53	119 8 3	5.0	1.00	1.50	.30	1000	20	500	2.0	30	70	20	70	5 N	20 L
43	41 47 47	119 8 21	5.0	.70	1.00	.50	2000	30	500	2.0	20	50	20	70	5 N	20 L
44	41 47 26	119 6 27	5.0	1.00	1.00	.30	1000	30	500	2.0	20	50	20	50	5 N	20 L
45	41 47 17	119 6 19	5.0	1.00	1.50	.50	1500	20	700	2.0	15	70	20	70	5 N	20 L
46	41 53 12	119 5 12	5.0	1.00	1.00	.50	500	20	700	1.5	5	20	20	50	5 N	20 L
47	41 53 7	119 5 20	3.0	.70	.70	.50	700	30	700	1.5	5	20	20	50	5 N	20 L
48	41 53 9	119 6 53	7.0	1.00	1.00	1.00	1000	20	1000	1.5	20	30	20	50	5 N	20 L
49	41 53 8	119 7 0	7.0	1.00	1.00	1.00	1000	20	700	1.5	20	30	20	70	5 N	20 L
50	41 53 6	119 7 27	5.0	1.00	1.00	.70	1000	20	700	1.5	20	50	20	70	5 N	20 L
51	41 53 0	119 7 27	7.0	1.50	1.00	1.00	2000	20	700	1.5	20	70	30	50	5 N	20 L
52	41 52 23	119 7 48	5.0	1.50	1.00	1.00	1000	20	700	1.5	30	50	30	50	5 N	20 L
53	41 52 19	119 7 40	5.0	1.00	.70	1.00	1000	20	700	1.5	15	20	20	50	5 N	20 L
54	41 53 39	119 8 42	5.0	1.50	1.00	1.00	1000	30	500	1.5	30	100	30	70	5 N	20 L
55	41 53 49	119 8 52	7.0	1.00	.70	1.00	1000	30	500	1.5	20	100	20	100	5 N	20 L
56	41 53 26	119 9 51	5.0	1.00	1.00	.70	1500	20	700	1.5	50	100	30	50	5 N	20 L
57	41 53 25	119 9 59	5.0	1.50	1.50	1.00	2000	15	700	1.5	50	100	30	50	5 N	20 L
58	41 54 6	119 10 48	5.0	1.00	1.00	.50	1000	20	700	1.5	20	50	20	50	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
18	30	20	20	10 N	500	100	30	200 N	300	0.04	45.0	.40	1.0 N	20	0.000 B	0.0000 B
19	20	20	20	10 N	500	150	30	200 N	300	0.03	31.0	.40 L	1.0 L	20	0.000 B	0.0000 B
20	30	20	20	10 N	500	100	50	200 N	300	0.02	26.0	.40 L	1.0 N	30	0.000 B	0.0000 B
21	30	30	20	10 N	500	100	50	200 N	300	0.03	31.0	.40	1.0 N	10	0.000 B	0.0000 B
22	10	20	10	10 N	300	100	50	200 N	200	0.07	25.0	.40 L	1.0 N	20	0.000 B	0.0000 B
23	20	30	15	10 N	300	150	50	200 N	1000	0.05	48.0	.40	1.0 L	10	0.000 B	0.0000 B
24	30	20	15	10 N	300	100	30	200 N	300	0.06	44.0	.40	1.0 L	10	0.000 B	0.0000 B
25	20	20	20	10 N	200	100	30	200 N	300	0.13	28.0	.40 L	1.0 L	10	0.000 B	0.0000 B
26	15	20	20	10 N	200	100	30	200 N	300	0.09	30.0	.40 L	1.0 L	20	0.000 B	0.0000 B
27	15	20	20	10 N	200	100	50	200 N	300	0.12	27.0	.40 L	1.0 L	20	0.000 B	0.0000 B
28	15	20	20	10 N	200	70	30	200 N	300	0.10	28.0	.40 L	1.0 L	30	0.000 B	0.0000 B
29	20	20	20	10 N	200	100	50	200 N	300	0.09	27.0	.40 L	1.0 N	20	0.000 B	0.0000 B
30	20	30	20	10 N	300	150	50	200 N	300	0.09	32.0	.50	1.0 N	10	0.000 B	0.0000 B
31	30	20	20	10 N	300	100	50	200 N	200	0.10	35.0	.60	1.0 N	20	0.000 B	0.0000 B
32	20	20	20	10 N	300	100	50	200 N	300	0.05	32.0	.40 L	1.0 L	20	0.000 B	0.0000 B
33	20	20	20	10 N	300	100	30	200 N	200	0.08	31.0	.40	1.0 N	20	0.000 B	0.0000 B
34	20	20	20	10 N	300	100	50	200 N	200	0.04	25.0	.40	1.0 N	20	0.000 B	0.0000 B
35	20	20	20	10 N	300	100	50	200 N	200	0.04	30.0	.50	1.0 L	10	0.000 B	0.0000 B
36	20	30	20	10 N	500	100	50	200 N	200	0.04	23.0	.40	1.0 N	10	0.000 B	0.0000 B
37	20	30	15	10 N	500	100	50	200 N	200	0.04	27.0	.40	1.0 N	10	0.000 B	0.0000 B
38	50	20	15	10 N	500	100	50	200 N	200	0.04	25.0	.40	1.0 N	10	0.000 B	0.0000 B
39	50	30	20	10 N	500	200	50	200 N	200	0.03	26.0	.40	1.0 L	10	0.000 B	0.0000 B
40	30	20	10	10 N	500	100	50	200 N	200	0.05	26.0	.60	1.0 L	20	0.000 B	0.0000 B
41	30	30	15	10 N	300	100	50	200 N	200	0.04	28.0	.50	1.0 L	10	15.800	4.6000
42	50	30	20	10 N	500	100	50	200 N	200	0.28	27.0	.50	1.0 L	10	13.520	3.5700
43	30	20	15	10 N	300	100	50	200 N	200	0.04	23.0	.40 L	1.0 L	20	15.030	4.9100
44	20	20	10	10 N	200	100	50	200 N	300	0.05	21.0	.40	1.0 L	20	16.040	7.0400
45	20	30	20	10 N	500	150	50	200 N	200	0.06	34.0	.40 L	1.0 L	20	12.670	3.4600
46	10	20	15	10 N	200	100	50	200 N	300	0.16	36.0	.40	1.0 N	20	0.000 B	0.0000 B
47	10	20	20	10 N	200	100	50	200 N	300	0.21	24.0	.40 L	1.0 N	30	0.000 B	0.0000 B
48	20	30	20	10 N	300	100	50	200 N	200	0.09	28.0	.40 L	1.0 N	20	0.000 B	0.0000 B
49	20	20	20	10 N	500	100	50	200 N	200	0.12	41.0	.40 L	1.0 N	20	0.000 B	0.0000 B
50	20	30	20	10 N	500	100	50	200 N	300	0.16	31.0	.40 L	1.0 N	40	0.000 B	0.0000 B
51	50	20	20	10 N	500	100	50	200 N	200	0.05	30.0	.40 L	1.0 N	20	0.000 B	0.0000 B
52	30	20	20	10 N	500	100	50	200 N	300	0.10	31.0	.40 L	1.0 N	20	0.000 B	0.0000 B
53	10	15	20	10 N	300	100	50	200 N	300	0.07	43.0	.40 L	1.0 N	20	0.000 B	0.0000 B
54	50	20	30	10 N	300	100	50	200 N	200	0.06	31.0	.40 L	1.0 N	20	0.000 B	0.0000 B
55	20	20	20	10 N	300	100	70	200 N	300	0.19	33.0	.40 L	1.0 N	30	0.000 B	0.0000 B
56	50	20	20	10 N	500	100	50	200 N	200	0.05	23.0	.40 L	1.0 N	20	0.000 B	0.0000 B
57	50	20	20	10 N	700	150	50	200 N	200	0.06	22.0	.40 L	1.0 N	20	0.000 B	0.0000 B
58	30	20	20	10 N	500	100	50	200 N	200	0.05	27.0	.40 L	1.0 N	20	0.000 B	0.0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
59	41 52 24	119 13 45	5.0	1.00	1.50	.70	1000	20	700	1.5	30	70	30	50	5 N	20 L
60	41 52 17	119 13 53	5.0	1.00	1.00	.50	1000	20	500	1.5	50	50	20	50	5 N	20 L
61	41 53 4	119 14 15	7.0	1.50	.70	.70	2000	20	700	1.5	20	30	20	70	5 N	20 L
62	41 53 12	119 14 15	7.0	.70	.70	.70	1000	20	700	1.5	20	30	20	70	5 N	20 L
63	41 54 29	119 12 32	5.0	1.00	1.00	.50	1000	20	700	1.5	10	50	20	70	5 N	20 L
64	41 54 15	119 13 19	5.0	1.00	1.00	1.00	1500	20	700	1.5	30	70	20	50	5 N	20 L
65	41 55 32	119 8 59	5.0	1.00	1.00	1.00	1500	20	700	1.5	20	50	20	50	5 L	20 L
66	41 56 25	119 9 24	5.0	1.00	1.00	.50	1000	20	700	1.5	20	50	20	50	5 N	20 L
67	41 56 35	119 10 23	5.0	1.00	1.00	.70	1000	20	700	1.5	20	50	20	50	5 N	20 L
68	41 56 49	119 10 23	5.0	1.00	1.00	.70	1500	20	500	1.5	20	50	20	50	5 N	20 L
69	41 57 2	119 10 38	5.0	1.00	1.00	.70	1500	20	700	1.5	20	50	20	50	5 N	20 L
70	41 58 40	119 11 9	5.0	1.00	1.00	.50	1000	20	700	1.5	20	50	20	50	5 N	20 L
71	41 59 15	119 11 57	5.0	1.00	1.00	.50	1000	20	700	1.5	20	50	20	50	5 N	20 L
72	41 59 31	119 12 24	5.0	1.00	1.00	.50	1000	20	700	1.5	30	50	20	50	5 N	20 L
73	41 49 44	119 0 33	5.0	.70	.70	.30	700	20	700	2.0	10	30	20	50	5 N	20 L
74	41 49 49	119 0 42	5.0	1.00	1.00	.50	1500	20	1000	2.0	15	50	10	70	15	20 L
75	41 49 15	119 0 36	5.0	1.00	.70	.30	700	30	700	2.0	10	30	20	70	10	20 L
76	41 47 17	119 13 42	5.0	1.00	1.00	1.00	2000	30	700	2.0	20	150	30	70	5 N	20 L
77	41 47 49	119 10 27	3.0	1.00	1.00	.50	2000	20	700	2.0	20	50	30	50	5 N	20 L
78	41 47 49	119 10 23	3.0	1.00	1.00	.50	1500	20	700	2.0	20	50	30	70	5 N	20 L
79	41 51 10	119 0 2	5.0	1.00	1.00	.50	500	20	500	2.0	10	30	20	70	5 L	20 L
80	41 55 1	119 10 10	5.0	.70	.30	.70	1000	20	500	1.0	30	50	20	50	5 N	20 L
81	41 47 35	119 6 0	2.0	.50	.50	.20	700	20	500	1.5	20	50	15	50	5 N	20 L
82	41 45 12	119 0 15	5.0	1.50	1.00	1.00	1000	20	500	1.0	20	50	20	50	5 N	20 L
83	41 48 35	119 0 33	5.0	1.50	1.00	1.00	1000	10	1000	1.0	20	70	20	50	10	20 L
84	41 48 29	119 0 30	2.0	.70	1.00	.50	1000	10	1000	1.0	15	70	15	50	20	20 L
85	41 48 12	119 1 2	3.0	.70	1.00	.50	1500	10	1500	1.0	15	50	15	50	15	20 L
86	41 49 27	119 1 27	3.0	.50	.70	1.00	1500	10	1500	1.0	20	50	15	50	10	20 L
87	41 49 19	119 2 4	7.0	1.00	1.00	1.00	1500	10	2000	1.0	30	50	30	50	10	20 L
88	41 48 32	119 2 48	2.0	.30	1.00	1.00	1000	10 L	2000	1.0	15	50	7	50	5	20 L
89	41 48 26	119 2 57	3.0	.50	1.00	.50	700	20	1000	1.0	15	50	20	50	10	20 L
90	41 48 29	119 3 7	5.0	.70	1.00	1.00	1000	15	1000	1.0	20	50	20	50	5 N	20 L
91	41 48 33	119 3 16	5.0	.70	1.00	1.00	1000	15	700	1.5	20	50	20	50	5 N	20 L
92	41 50 57	119 0 42	3.0	.70	1.00	.70	1000	20	700	1.5	20	50	20	70	10	20 L
93	41 50 53	119 0 39	3.0	.70	1.00	1.00	1000	20	700	1.5	20	50	20	70	5 N	20 L
94	41 52 36	119 2 23	5.0	.30	.70	.30	500	20	700	2.0	10	50	10	70	5 N	20 L
95	41 52 27	119 2 26	2.0	.20	.70	.20	300	20	700	2.0	10	20	10	70	20	20 L
96	41 52 6	119 0 23	5.0	.50	.70	.70	1000	20	700	1.5	15	50	15	70	5 N	20 L
97	41 52 30	119 1 23	3.0	.70	2.00	.70	1500	20	1000	2.0	5	20	15	50	5 L	20 L
98	41 59 30	119 6 51	5.0	1.00	1.00	.50	1000	20	500	1.5	20	30	20	50	10	20 L
99	41 52 20	119 2 22	7.0	1.00	1.50	1.00 G	3000	20	2000	1.0	15	10	15	30	5 N	20 N

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
59	30	20	20	10 N	700	150	50	200 N	200	0,09	24,0	,40 L	1,0 N	10	0,000 B	0,0000 B
60	30	20	20	10 N	500	100	50	200 N	300	0,16	22,0	,40 L	1,0 N	10	0,000 B	0,0000 B
61	20	20	20	10 N	300	150	50	200 N	300	0,06	21,0	,40 L	1,0 N	10	0,000 B	0,0000 B
62	7	20	20	10 N	200	100	70	200 N	300	0,06	22,0	,40 L	1,0 N	10	0,000 B	0,0000 B
63	7	20	20	10 N	200	100	50	200 N	300	0,07	31,0	,40 L	1,0 L	10	0,000 B	0,0000 B
64	30	20	20	10 N	500	100	50	200 N	500	0,06	26,0	,40 L	1,0 N	10	0,000 B	0,0000 B
65	20	20	20	10 N	300	100	50	200 N	300	0,12	18,0	,40 L	1,0 N	10	0,000 B	0,0000 B
66	20	20	20	10 N	300	100	50	200 N	300	0,04	17,0	,40 L	1,0 N	20	0,000 B	0,0000 B
67	20	20	20	10 N	300	100	50	200 N	200	0,04	19,0	,40 L	1,0 L	10	0,000 B	0,0000 B
68	20	20	20	10 N	300	100	50	200 N	300	0,06	20,0	,40 L	1,0 L	30	0,000 B	0,0000 B
69	20	20	20	10 N	500	150	50	200 N	300	0,11	19,0	,40 L	1,0 N	30	0,000 B	0,0000 B
70	20	20	20	10 N	300	100	50	200 N	200	0,14	28,0	,40 L	1,0 L	20	0,000 B	0,0000 B
71	20	20	20	10 N	300	100	50	200 N	300	0,05	31,0	,40 L	1,0 N	30	0,000 B	0,0000 B
72	20	20	20	10 N	300	100	50	200 N	300	0,06	26,0	,40 L	1,0 N	20	0,000 B	0,0000 B
73	15	20	20	10 N	300	70	50	200 N	300	0,06	38,0	,50	1,0 N	40	0,000 B	0,0000 B
74	10	20	20	10 N	700	100	50	200 N	300	0,04	23,0	,40	1,0 L	80	0,000 B	0,0000 B
75	20	20	15	10 N	300	70	70	200 N	300	0,04	33,0	,50	1,0 N	20	0,000 B	0,0000 B
76	30	30	20	10 N	300	100	70	200 N	300	0,06	38,0	,50	1,0 L	20	0,000 B	0,0000 B
77	30	30	20	10 N	500	100	50	200 N	200	0,04	34,0	,60	1,0 L	20	0,000 B	0,0000 B
78	30	20	20	10 N	500	100	50	200 N	200	0,04	33,0	,50	1,0 L	20	0,000 B	0,0000 B
79	20	20	15	10 N	500	100	50	200 N	300	1,95	28,0	,40 L	2,0	10	0,000 B	0,0000 B
80	30	20	20	10 N	300	100	20	200 L	200	0,03	26,0	,50	1,0 N	20	0,000 B	0,0000 B
81	20	20	10	10 N	500	50	30	200 N	200	0,04	20,0	,40	1,0 L	40	0,000 B	7,4100
82	20	20	20	10 N	300	200	30	200 N	300	0,03	28,0	,40	1,0 N	20	0,000 B	0,0000 B
83	20	20	20	10 N	500	100	50	200 N	200	0,03	20,0	,40	1,0	40	0,000 B	0,0000 B
84	5	20	15	10 N	500	100	70	200 N	300	0,03	15,0	,50	2,0	80	0,000 B	0,0000 B
85	15	20	20	10 N	700	100	30	200 N	200	0,03	15,0	,40	1,0	60	0,000 B	0,0000 B
86	15	20	20	10 N	500	100	30	200 N	200	0,03	20,0	,50	1,0	40	4,620	2,5700
87	20	20	30	10 N	500	150	50	200 N	200	0,05	30,0	,60	1,0 L	50	7,970	3,0600
88	10	20	15	10 N	500	100	50	200 N	200	0,02	14,0	,50	1,0 L	40	7,360	3,4000
89	15	20	15	10 N	700	100	50	200 N	200	0,04	15,0	,40	1,0 N	30	11,810	3,6600
90	15	20	20	10 N	500	150	50	200 N	300	0,04	15,0	,50	1,0 N	30	11,300	3,2300
91	15	20	20	10 N	500	100	50	200 N	200	0,05	15,0	,50	1,0 N	50	0,000 B	5,1000
92	15	20	15	10 N	500	100	50	200 N	300	0,05	15,0	,40	1,0 N	40	0,000 B	0,0000 B
93	15	20	20	10 N	500	100	50	200 N	300	0,06	17,0	,40	1,0 L	30	0,000 B	0,0000 B
94	10	30	15	10 N	300	70	70	200 N	300	0,31	26,0	,40 L	1,0 N	40	0,000 B	0,0000 B
95	10	30	10	10 N	300	30	50	200 N	300	0,05	15,0	,40 L	1,0	40	0,000 B	0,0000 B
96	20	30	15	10 N	300	70	50	200 N	300	0,19	20,0	,40	1,0 N	40	0,000 B	0,0000 B
97	5	30	15	10 N	300	70	50	200 N	300	0,32	16,0	,40	9,0	20	0,000 B	0,0000 B
98	20	20	15	10 N	500	100	30	200 N	200	0,03	20,0	,50	1,0 L	20	0,000 B	0,0000 B
99	50	30	20	10 N	300	100	30	200	200	0,04	30,0	1,00 N	0,5 N	30	10,780	4,4700

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
100	41 51 45	119 0 51	10.0	1.00	1.00	1.00 G	5000	15	1000	1.0 N	30	15	15	30	5 N	20
101	41 51 1	119 0 52	3.0	.70	1.50	.70	1000	10 N	700	1.0	10	10	5	20 N	5	20 L
102	41 49 51	119 1 50	10.0	1.00	1.00	1.00 G	3000	10 L	2000	1.0 L	30	50	15	20	5 N	30
103	41 49 36	119 3 6	5.0	.70	1.50	.70	1500	15	1000	1.5	15	150	10	20 N	5	20 N
104	41 49 9	119 3 36	3.0	.70	2.00	.50	1500	30	700	2.0	15	15	15	20	7	20 N
105	41 49 6	119 4 24	7.0	1.50	2.00	1.00 G	1500	10 L	500	1.0	20	70	20	30	5 N	20 L
106	41 48 26	119 5 49	3.0	.70	1.50	.15	700	50	200	3.0	10	15	15	70	10	20 N
107	41 49 0	119 3 5	5.0	1.00	1.50	1.00	1000	20	1000	2.0	15	50	20	50	5 L	20 L
108	41 50 16	119 1 14	2.0	.70	2.00	.30	700	20	1000	2.0	7	30	20	50	10	20 L
108	41 50 16	119 1 14	2.0	.70	1.50	.30	500	20	1000	2.0	10	20	15	50	10	20 L
109	41 47 47	119 8 4	3.0	1.00	1.50	.15	1000	50	300	2.0	10	20	20	50	5	20
110	41 48 29	119 10 27	3.0	1.00	1.00	.20	700	50	200	2.0	7	10	15	70	5 L	20
111	41 48 43	119 10 37	3.0	1.50	1.50	.15	1000	50	300	3.0	10	15	10	50	5 L	20
112	41 47 20	119 11 52	3.0	.70	1.50	.15	700	50	300	2.0	10	10	15	50	5 L	20
113	41 48 29	119 14 4	3.0	.70	1.00	.30	1000	50	500	2.0	20	30	10	50	5 L	20 L
114	41 45 42	119 14 48	3.0	.70	1.00	.15	700	50	300	3.0	7	20	15	50	5 N	50
115	41 53 8	119 1 0	3.0	.70	1.50	.15	1000	50	300	3.0	15	20	15	50	5	30
116	41 52 46	119 2 47	2.0	.70	1.00	.15	700	50	300	2.0	7	20	10	50	5	20
117	41 52 33	119 3 26	3.0	1.00	2.00	.20	1000	30	500	2.0	7	20	10	50	5	20
118	41 52 39	119 3 32	3.0	.70	1.50	.15	700	50	700	2.0	7	10	10	50	5	20
119	41 52 36	119 3 51	3.0	.70	1.50	.15	700	30	500	2.0	7	10	10	50	5 L	20
120	41 52 45	119 4 27	3.0	.70	1.00	.20	700	50	500	2.0	7	20	15	50	5 L	30
121	41 53 51	119 6 23	3.0	.70	1.00	.20	1000	50	200	3.0	10	20	10	70	5	30
122	41 53 47	119 6 33	3.0	.70	1.00	.15	700	50	300	2.0	7	20	15	50	5	30
123	41 53 16	119 7 0	5.0	1.00	2.00	1.00	700	30	500	2.0	7	20	15	30	5 N	20
124	41 53 8	119 9 48	3.0	1.00	3.00	.30	700	20	300	1.5	30	70	15	30	5 N	20 N
125	41 55 18	119 9 33	2.0	.50	.50	.10	500	50	150	3.0	5 N	10	5	70	7	20 L
126	41 56 16	119 11 17	3.0	1.00	1.50	.20	700	30	300	3.0	20	20	10	50	5 N	20 N
127	41 56 59	119 11 9	3.0	.70	2.00	.20	1000	30	300	3.0	15	20	15	70	5	20 N
128	41 55 27	119 14 47	3.0	1.00	1.50	.30	1000	30	300	2.0	20	30	15	50	5 L	20 N
129	41 56 58	119 13 49	3.0	1.00	2.00	.20	1000	30	300	3.0	15	15	10	50	5 N	20 N
130	41 57 14	119 14 21	3.0	.70	3.00	.30	1000	30	300	3.0	15	15	15	50	5 N	20 N
131	41 50 44	119 0 20	3.0	.50	1.50	.30	700	50	700	3.0	10	30	7	50	5 L	20 L
132	41 49 59	119 0 38	3.0	.50	1.50	.30	700	50	700	3.0	15	20	10	50	7	20 L
133	41 48 54	119 0 21	2.0	.70	2.00	.30	3000	10	1500	1.0	20	20	7	30	10	20 L
134	41 48 21	119 0 2	3.0	.70	1.00	.30	700	50	700	2.0	15	20	7	50	7	20 L
		CATNIP CANYON 7.5 MINUTE QUADRANGLE														
1	41 55 10	119 23 12	5.0	1.00	1.50	.50	1000	30	500	2.0	20	50	20	50	5 N	20 L
2	41 55 14	119 23 29	7.0	1.00	1.00	.50	1000	30	500	2.0	20	50	20	50	5 N	20 L
3	41 55 15	119 23 45	7.0	1.00	1.00	.50	700	30	500	2.0	15	50	20	50	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
100	30	15	30	10 N	200	150	20	200	100	0,02	30,0	1,00 N	0,5 N	10	0,000 B	7,1200
101	20	10	10	10 N	200	70	30	200 N	150	0,02	18,0	1,00 N	0,5 N	20	32,380	0,0000 B
102	15	15	30	10 N	150	200	70	200 L	1000 G	0,02 L	12,0	1,00 N	0,5 L	10	9,350	6,7500
103	15	20	10	10 N	300	70	20	200 N	200	0,02 L	18,0	1,00 L	0,5 L	40	6,900	2,9000
104	20	20	15	10 N	300	100	30	200 N	150	0,04	24,0	1,00 N	0,5 N	60	7,470	2,5700
105	30	30	20	10 N	300	150	50	200 L	150	0,02	28,0	1,00 L	0,5	10	9,530	4,2300
106	20	30	15	10 N	200	70	50	200 L	150	0,04	36,0	1,00	0,5 L	20	19,150	13,2200
107	5 L	20	15	10 N	300	100	30	200 N	300	0,04	14,2	,50	1,0 L	20	10,611	4,0372
108	5 L	20	10	10 N	300	70	30	200 N	200	0,05	9,8	,40	1,0	40	10,105	3,7583
109	5	20	10	10 N	300	70	30	200 N	200	0,04	11,6	,40	1,0 L	40	12,504	3,5935
110	20	20	7	10 N	300	70	50	200 N	200	0,02	21,0	1,00	0,5 L	10	0,000 B	0,0000 B
111	15	15	7	10 L	200	70	100	200 N	200	0,02	18,0	1,00	0,5 L	10 N	0,000 B	0,0000 B
112	20	20	10	10 N	300	70	30	200 N	200	0,02 L	30,0	,00 B	0,0 B	10	0,000 B	0,0000 B
113	15	20	7	10 L	300	50	30	200 N	200	0,02 L	26,0	1,00	0,5	10	0,000 B	0,0000 B
114	20	30	15	10 N	300	50	30	200 N	200	0,47	25,0	,70	1,0 N	10	0,000 B	0,0000 B
115	15	20	7	10 L	300	50	30	200 N	200	0,16	24,0	1,00 L	0,5 L	10	0,000 B	0,0000 B
116	20	20	7	10 N	200	50	30	200 N	150	0,06	22,0	1,00 L	0,5 L	10	0,000 B	0,0000 B
117	15	15	7	10 L	200	50	30	200 N	150	0,02	20,0	1,00 L	0,5 L	10	0,000 B	0,0000 B
118	15	20	10	10 N	300	70	30	200 N	150	0,02	24,0	1,00	0,5 L	20	0,000 B	0,0000 B
119	10	15	7	10 N	300	50	30	200 N	150	0,02 N	25,0	1,00	0,5	20	0,000 B	0,0000 B
120	10	15	10	10 N	200	70	30	200 N	200	0,04	28,0	1,00	0,5 L	30	0,000 B	0,0000 B
121	15	20	7	10 N	150	70	30	200 N	200	0,04	30,0	1,00	0,5 L	10	0,000 B	0,0000 B
122	20	15	7	10 L	200	50	30	200 N	200	0,02	20,0	1,00	0,5 L	10	0,000 B	0,0000 B
123	20	20	20	10 N	300	150	30	200 L	200	0,06	25,0	1,00	0,5 L	10	0,000 B	0,0000 B
124	50	20	15	10 N	500	150	20	200 N	150	0,02	35,0	1,00	0,5 L	10	0,000 B	0,0000 B
125	7	15	5	10 N	150	30	30	200 N	150	0,04	24,0	1,00	0,5 L	20	0,000 B	0,0000 B
126	20	20	7	10 N	300	70	20	200 N	150	0,02	20,0	1,00 L	0,5 L	20	0,000 B	0,0000 B
127	15	30	10	10 N	300	70	30	200 N	200	0,04	25,0	1,00	0,5 L	20	0,000 B	0,0000 B
128	20	20	10	10 N	300	100	30	200 N	150	0,02	22,0	1,00	0,5 L	10	0,000 B	0,0000 B
129	15	20	7	10 N	300	100	20	200 N	150	0,02 L	28,0	1,00 L	0,5 L	20	0,000 B	0,0000 B
130	15	30	7	10 N	200	100	15	200 N	150	0,04	25,0	1,00 L	0,5 L	10 N	0,000 B	0,0000 B
131	15	50	15	10 N	500	50	30	200 N	150	0,02	26,0	1,00	0,5 L	10 N	0,000 B	0,0000 B
132	15	30	15	10 N	300	50	30	200 N	200	0,75	20,0	,50	2,0	20	0,000 B	0,0000 B
133	15	70	10	10 N	700	50	20	200 N	70	0,48	24,0	,50	1,0 L	80	0,000 B	0,0000 B
134	15	50	15	10 N	300	150	30	200	200	1,10	13,0	,40	2,0	90	0,000 B	0,0000 B
										0,55	24,0	,50	1,0 L	20	0,000 B	0,0000 B
CATNIP CANYON 7,5 MINUTE QUADRANGLE																
1	20	30	20	10 N	500	100	50	200 N	300	0,03	32,0	,50	1,0 L	10	0,000 B	0,0000 B
2	20	30	20	10 N	500	150	50	200 N	200	0,02	36,0	,40	1,0 N	20	0,000 B	0,0000 B
3	20	20	20	10 N	500	150	30	200 N	200	0,02	26,0	,40 L	1,0	20	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
4	41 55 46	119 24 6	5.0	1.00	1.00	.50	1000	30	500	2.0	15	50	15	50	5 N	20 L
5	41 55 53	119 23 59	3.0	1.00	.50	.30	700	30	500	2.0	15	50	20	50	5 N	20 L
6	41 55 50	119 23 53	3.0	.70	.50	.20	500	30	500	2.0	15	50	20	50	5 N	20 L
7	41 55 46	119 23 49	7.0	1.00	1.00	.50	1000	30	500	2.0	15	50	20	50	5 N	20 L
8	41 55 41	119 23 47	5.0	1.00	.50	.50	700	30	500	2.0	15	50	20	50	5 N	20 L
9	41 55 45	119 23 42	2.0	.30	.50	.30	500	30	500	2.0	15	50	10	50	5 N	20 L
10	41 55 38	119 23 29	5.0	.70	.50	.50	700	30	500	2.0	15	50	20	50	5 N	20 L
11	41 55 36	119 23 18	2.0	.50	.50	.50	700	30	500	2.0	7	50	20	30	5 N	20 L
12	41 55 38	119 23 2	3.0	.70	.50	.50	700	30	500	2.0	15	50	20	70	5 N	20 L
13	41 55 51	119 24 7	5.0	1.50	1.00	.50	1000	20	700	1.0	10	20	20	50	5 N	20 L
14	41 55 5	119 25 36	3.0	.70	.70	.30	700	50	500	2.0	15	50	20	50	5 N	20 L
15	41 55 18	119 26 25	3.0	.70	1.50	.30	700	30	500	2.0	10	50	10	50	5 L	20 L
16	41 55 0	119 26 30	5.0	1.00	1.50	1.00	1000	20	700	2.0	20	30	10	50	5 L	20 L
17	41 53 56	119 26 21	3.0	.50	1.50	.50	1000	30	700	2.0	10	50	10	50	5 N	20 L
18	41 59 4	119 25 54	3.0	.70	1.50	.50	700	30	500	2.0	10	50	10	50	5 L	20 L
19	41 56 2	119 25 45	5.0	.70	1.00	.50	1000	20	1000	2.0	20	50	20	50	5 N	20 L
20	41 56 15	119 25 41	7.0	1.00	1.00	.50	1000	20	1000	2.0	30	50	30	70	5 N	20 L
21	41 56 21	119 25 40	5.0	.70	1.00	.30	1000	20	1000	2.0	20	50	30	100	5 N	20 L
22	41 56 35	119 25 19	3.0	.70	.70	.30	1000	20	700	2.0	15	50	30	50	5 N	20 L
23	41 56 38	119 24 57	5.0	1.00	.50	.50	700	30	700	2.0	15	50	30	50	5 N	20 L
24	41 53 54	119 25 46	5.0	.70	1.50	.50	700	50	700	2.0	15	50	10	50	5 N	20 L
25	41 56 44	119 25 0	5.0	1.00	.70	.50	1000	20	700	2.0	15	50	20	50	5 N	20 L
26	41 56 47	119 24 33	5.0	1.00	1.00	.50	1500	30	700	2.0	20	50	30	50	5 N	20 L
27	41 56 40	119 24 28	5.0	1.00	1.00	.50	1000	20	700	2.0	20	50	30	70	5 N	20 L
28	41 55 6	119 25 9	5.0	.70	1.00	.50	1000	30	700	2.0	20	50	30	70	5 N	20 L
29	41 54 42	119 28 23	5.0	1.00	1.00	.70	1000	20	700	2.0	20	100	30	50	5 N	20 L
30	41 59 43	119 23 30	5.0	1.00	.70	.70	1000	20	500	2.0	20	50	20	50	5 N	20 L
31	41 54 1	119 25 41	3.0	.50	1.00	.30	500	30	700	2.0	7	30	10	50	5 N	20 L
32	41 59 0	119 24 3	5.0	1.00	1.50	1.00	1000	20	1000	2.0	20	50	50	50	5 N	20 L
33	41 59 13	119 24 11	5.0	1.00	1.00	.70	1500	20	700	2.0	30	50	30	70	5 N	20 L
34	41 59 32	119 24 55	5.0	1.00	1.00	.70	1500	20	700	2.0	20	50	30	50	5 N	20 L
35	41 59 26	119 25 13	7.0	1.00	.70	1.00	1000	15	1000	2.0	20	50	50	50	5 N	20 L
36	41 58 32	119 26 27	5.0	.70	.70	.50	1000	20	700	2.0	20	50	50	50	5 N	20 L
37	41 58 31	119 26 48	3.0	.50	.70	.50	700	20	500	2.0	20	50	20	50	5 N	20 L
38	41 57 28	119 25 41	3.0	.50	.70	.50	500	20	1000	2.0	20	50	30	50	5 N	20 L
39	41 57 36	119 25 5	5.0	.50	1.00	.70	1000	20	700	2.0	20	50	30	50	5 N	20 L
40	41 57 20	119 24 46	3.0	.50	1.00	.50	700	20	700	2.0	15	50	30	50	5 N	20 L
41	41 53 8	119 25 36	3.0	.50	.70	.30	700	50	500	2.0	10	50	10	50	5	20 L
42	41 57 28	119 24 28	2.0	.30	.70	.30	500	15	500	2.0	5	50	15	50	5 N	20 L
43	41 57 6	119 24 12	5.0	.50	.70	.50	700	20	500	2.0	15	50	30	50	5 N	20 L
44	41 59 39	119 22 41	5.0	1.00	1.00	.50	1000	20	500	2.0	20	50	30	70	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
4	20	30	15	10 N	500	100	30	200 N	200	0.03	29.0	.50	1.0 L	10	0.000 B	0.0000 B
5	20	20	15	10 N	300	100	20	200 N	200	0.02	40.0	.50	1.0 L	10	0.000 B	0.0000 B
6	20	20	15	10 N	300	70	20	200 N	200	0.03	44.0	.70	1.0 L	10	0.000 B	0.0000 B
7	20	30	15	10 N	300	150	20	200 N	200	0.03	38.0	.50	1.0 L	10	0.000 B	0.0000 B
8	20	20	15	10 N	300	150	30	200 N	200	0.02	36.0	.50	1.0 L	10	0.000 B	0.0000 B
9	20	10	15	10 N	300	100	20	200 N	200	0.02	43.0	.50	1.0 L	10	0.000 B	0.0000 B
10	20	20	15	10 N	300	100	30	200 N	200	0.05	41.0	.50	1.0 L	20	0.000 B	0.0000 B
11	15	10	10	10 N	200	100	20	200 N	200	0.02	29.0	.40	1.0 L	10	0.000 B	0.0000 B
12	20	20	15	10 N	300	100	30	200 N	200	0.05	37.0	.60	1.0 L	10	0.000 B	0.0000 B
13	10	10	5	10 N	200	150	10	200 N	300	0.05 L	38.0	1.20	1.0 N	40	0.000 B	0.0000 B
14	20	30	15	10 N	300	100	30	200 N	200	0.42	28.0	.50	1.0 L	20	0.000 B	0.0000 B
15	20	30	15	10 N	500	50	30	200 N	200	0.36	20.0	.40	1.0 L	10	0.000 B	0.0000 B
16	20	50	15	10 N	700	150	30	200 N	300	0.05	23.0	.50	1.0 L	20	0.000 B	0.0000 B
17	20	50	15	10 N	300	70	30	200 N	200	0.15	35.0	.50	1.0 L	20	0.000 B	0.0000 B
18	20	30	15	10 N	500	70	30	200 N	300	0.10	24.0	.50	1.0 L	20	0.000 B	0.0000 B
19	15	20	20	10 N	500	100	30	200 N	300	0.02 N	27.7	.50	1.0 L	10	0.000 B	0.0000 B
20	30	20	15	10 N	500	150	30	200 N	500	0.02 N	26.0	.40 L	1.0 L	20	0.000 B	0.0000 B
21	20	20	15	10 N	500	150	20	200 N	300	0.02 N	27.9	.40 L	1.0 L	20	0.000 B	0.0000 B
22	20	20	15	10 N	500	100	20	200 N	200	0.02 N	41.0	.40 L	1.0 L	20	0.000 B	0.0000 B
23	30	20	15	10 N	500	100	20	200 N	200	0.02 N	43.0	.50	1.0 L	20	0.000 B	0.0000 B
24	20	30	15	10 N	500	100	30	200 N	200	0.05	30.0	.50	1.0 L	30	0.000 B	0.0000 B
25	20	20	15	10 N	500	100	20	200 N	300	0.02 N	40.0	.50	1.0 L	10	0.000 B	0.0000 B
26	20	50	15	10 N	500	100	20	200 N	200	0.02 N	46.0	.60	1.0 L	20	0.000 B	0.0000 B
27	30	20	15	10 N	500	100	20	200 N	300	0.02 N	42.0	.50	1.0 L	20	0.000 B	0.0000 B
28	20	20	15	10 N	500	100	30	200 N	300	0.02 N	29.0	.40 L	1.0 N	10	0.000 B	0.0000 B
29	30	20	20	10 N	500	150	20	200 N	200	0.02 N	26.0	.40 L	1.0 N	10	0.000 B	0.0000 B
30	20	20	15	10 N	500	100	20	200 N	500	0.04	30.0	.40 L	1.0 N	20	0.000 B	0.0000 B
31	15	30	15	10 N	500	70	30	200 N	200	0.02 N	23.0	.50	1.0 L	20	0.000 B	0.0000 B
32	30	20	15	10 N	500	150	20	200 N	300	0.06	30.0	.40	1.0 L	60	0.000 B	0.0000 B
33	30	20	15	10 N	300	150	20	200 N	200	0.10	31.0	.40 L	1.0 N	20	0.000 B	0.0000 B
34	20	20	15	10 N	500	150	20	200 N	300	0.09	31.0	.40	1.0 N	20	0.000 B	0.0000 B
35	30	20	15	10 N	300	200	20	200 N	300	0.07	43.0	.40 L	1.0 L	20	0.000 B	0.0000 B
36	30	20	15	10 N	300	150	20	200 N	200	0.10	43.0	.40 L	1.0 L	20	0.000 B	0.0000 B
37	20	20	15	10 N	500	100	20	200 N	150	0.06	30.0	.40 L	1.0 L	10	0.000 B	0.0000 B
38	20	20	15	10 N	500	100	30	200 N	200	0.15	39.0	.40 L	1.0 L	10	0.000 B	0.0000 B
39	20	20	15	10 N	500	150	20	200 N	300	0.06	30.0	.40 L	1.0 L	40	0.000 B	0.0000 B
40	20	20	15	10 N	500	100	20	200 N	200	0.06	31.0	.40 L	1.0 N	10	0.000 B	0.0000 B
41	20	20	15	10 N	300	70	30	200 N	200	0.10	28.0	.70	1.0 L	20	0.000 B	0.0000 B
42	10	10	7	10 N	200	70	20	200 N	150	0.12	30.0	.50	1.0 N	20	0.000 B	0.0000 B
43	20	20	15	10 N	200	100	20	200 N	300	0.15	50.0	.40	1.0 L	20	0.000 B	0.0000 B
44	30	20	15	10 N	300	100	20	200 N	200	0.17	42.0	.40	1.0 N	10	0.000 B	0.0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
45	41 58 54	119 22 56	5.0	1.00	1.00	.50	300	30	700	2.0	20	50	30	50	5 N	20 L
46	41 58 58	119 22 50	3.0	.70	.70	.30	1000	20	500	2.0	10	70	20	50	5 N	20 L
47	41 59 17	119 22 50	2.0	.30	.30	.30	300	15	300	2.0	10	30	15	50	5 N	20 L
48	41 59 50	119 29 11	10.0	1.50	1.00	1.00	1500	15	1000	1.0	50	70	30	50	5 N	20 L
48	41 59 50	119 29 11	5.0	1.00	1.50	.50	1500	20	1000	1.0	50	70	30	70	5 N	20 L
48	41 59 50	119 29 11	7.0	1.00	1.00	1.00	1000	20	700	1.5	50	70	50	70	5 N	20 L
49	41 58 58	119 29 48	7.0	1.00	1.00	1.00	1500	20	1000	1.0	50	100	50	70	5 N	20 L
50	41 57 23	119 29 39	5.0	1.00	1.00	.50	1000	15	1000	1.5	50	70	30	50	5 N	20 L
51	41 55 27	119 29 21	5.0	1.00	1.00	.50	1000	20	700	1.5	20	100	50	50	5 N	20 L
52	41 55 30	119 29 26	5.0	1.00	.70	.50	700	20	500	1.0	20	50	30	50	5 N	20 L
53	41 54 47	119 27 7	3.0	.70	1.00	.50	700	30	700	1.5	10	30	20	50	5 N	20 L
54	41 54 51	119 28 18	3.0	1.00	1.00	.70	300	20	700	1.5	20	50	20	50	5 N	20 L
55	41 54 48	119 28 50	5.0	1.00	1.00	1.00	1500	20	500	1.0	20	70	30	50	5 N	20 L
56	41 59 58	119 23 48	7.0	1.00	1.00	1.00	1500	20	500	1.5	30	70	30	70	5 N	20 L
57	41 59 58	119 24 50	5.0	1.00	1.00	1.00	1000	20	700	1.5	20	50	30	70	5 N	20 L
		COLEMAN CANYON 7.5 MINUTE QUADRANGLE														
1	41 54 29	119 37 33	5.0	1.00	1.50	.50	1500	20	1000	1.5	20	50	30	70	5 N	20 L
2	41 54 20	119 37 35	5.0	1.00	1.00	.70	1000	20	700	1.5	20	50	20	50	5 N	20 L
3	41 56 48	119 38 54	3.0	.70	1.50	.30	700	20	700	1.0	20	30	20	50	5 N	20 L
4	41 56 17	119 40 51	5.0	1.00	2.00	.70	700	30	1000	1.5	20	30	30	50	5 N	20 L
5	41 56 16	119 40 41	5.0	1.00	1.50	.70	1500	20	700	1.5	50	30	30	50	5 N	20 L
6	41 56 8	119 40 6	5.0	1.00	1.00	1.00	1000	20	700	1.0	50	50	30	50	5 N	20 L
7	41 54 52	119 41 20	10.0	2.00	2.00	1.00	1500	20	700	1.0	20	30	50	50	5 N	20 L
		CALCUTTA LAKE 7.5 MINUTE QUADRANGLE														
1	41 50 30	119 38 45	3.0	1.00	1.00	.50	700	20	1000	1.5	15	50	20	50	5 N	20 L
2	41 50 26	119 38 48	5.0	.70	.70	1.00	2000	15	1500	1.5	15	20	20	50	5 N	20 L
3	41 50 8	119 40 5	5.0	1.00	1.00	1.00	1000	20	700	1.5	20	50	20	50	5 N	20 L
4	41 50 13	119 40 5	5.0	.70	1.00	1.00	1000	20	1000	1.5	10	20	20	50	5 N	20 L
5	41 48 0	119 38 39	5.0	1.00	.70	.50	1000	30	1000	2.0	20	50	30	70	5 N	20 L
6	41 48 0	119 38 57	5.0	1.00	1.00	.50	1500	30	1500	2.0	20	50	30	70	5 N	20 L
7	41 48 29	119 39 23	5.0	1.00	1.00	.50	1500	30	1000	2.0	20	50	30	70	5 N	20 L
8	41 48 35	119 39 38	3.0	.70	1.00	.50	700	30	1000	2.0	5	50	20	50	5 N	20 L
9	41 50 8	119 39 9	3.0	.70	1.00	.50	1000	20	700	3.0	20	50	20	50	5 N	20 L
10	41 50 2	119 38 49	5.0	.70	1.00	1.00	1000	20	700	2.0	15	50	30	50	5 N	20 L
11	41 49 51	119 38 44	5.0	.70	1.00	.70	1500	20	1000	2.0	10	50	20	50	5 N	20 L
12	41 49 47	119 38 29	5.0	.70	.70	1.00 G	1000	10	700	1.0	20	30	20	50	5 N	20 L
13	41 49 54	119 38 21	7.0	.70	.70	1.00 G	5000	10	1000	1.0	20	20	20	50	5 N	20 L
14	41 49 53	119 38 6	5.0	.70	.70	1.00 G	1000	20	1000	1.0	20	50	30	50	5 N	20 L
15	41 49 36	119 38 0	5.0	1.00	1.00	1.00 G	1500	20	1500	1.0	20	20	20	70	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
45	30	20	20	10 N	200	100	50	200 N	200	0,06	43,0	,40 L	1,0 L	20	0,000 B	0,0000 B
46	20	20	15	10 N	200	100	30	200 N	200	0,10	43,0	,50	1,0 L	20	0,000 B	0,0000 B
47	20	10	10	10 N	200	100	20	200 N	150	0,15	39,0	,50	1,0 L	20	0,000 B	0,0000 B
48	50	20	20	10 N	500	200	30	200 N	300	0,06	46,0	,60	1,0 N	10	0,000 B	0,0000 B
48	50	20	20	10 N	500	150	50	200 N	200	0,04	38,0	,40 L	1,0 L	20	0,000 B	0,0000 B
48	50	20	20	10 N	500	150	30	200 N	200	0,04	39,0	,50	1,0 L	20	0,000 B	0,0000 B
49	50	20	20	10 N	500	200	50	200 N	200	0,05	46,0	,60	1,0 N	10	0,000 B	0,0000 B
50	50	20	20	10 N	500	150	30	200 N	200	0,06	30,0	,50	1,0 N	10	0,000 B	0,0000 B
51	50	20	20	10 N	500	100	30	200 N	200	0,06	30,0	,50	1,0 N	20	0,000 B	0,0000 B
52	20	20	20	10 N	300	100	50	200 N	300	0,10	23,0	,40	1,0 N	20	0,000 B	0,0000 B
53	20	20	20	10 N	500	100	30	200 N	200	0,04	18,0	,40	1,0	10	0,000 B	0,0000 B
54	20	20	20	10 N	500	100	50	200 N	200	0,10	22,0	,40	1,0 N	20	0,000 B	0,0000 B
55	30	20	20	10 N	500	100	50	200 N	200	0,03	20,0	,40	1,0 N	10	0,000 B	0,0000 B
56	20	20	30	10 N	500	200	50	200 N	200	0,05	33,0	,50	1,0 N	40	0,000 B	0,0000 B
57	20	20	20	10 N	300	100	50	200 N	200	0,04	25,0	,40	1,0 L	30	0,000 B	0,0000 B
COLEMAN CANYON 7,5 MINUTE QUADRANGLE																
1	30	20	20	10 N	700	100	30	200 N	300	0,05	32,0	,50	1,0 L	20	0,000 B	0,0000 B
2	30	10	20	10 N	500	100	20	200 N	200	0,10	33,0	,40	1,0 N	10	0,000 B	0,0000 B
3	30	20	15	10 N	500	70	30	200 N	200	0,03	20,0	,40 L	1,0 N	10	0,000 B	0,0000 B
4	30	20	20	10 N	500	100	30	200 N	300	0,04	24,0	,50	1,0 N	20	0,000 B	0,0000 B
5	30	20	20	10 N	500	200	30	200 N	200	0,03	42,0	,50	1,0 L	10	0,000 B	0,0000 B
6	30	20	20	10 N	500	150	30	200 N	200	0,06	45,0	,50	1,0 N	10 N	0,000 B	0,0000 B
7	30	20	20	10 N	700	200	30	200 N	300	0,04	54,0	,50	1,0 N	10	0,000 B	0,0000 B
CALCUTTA LAKE 7,5 MINUTE QUADRANGLE																
1	20	20	15	20 N	500	100	50	500 N	200	0,42	27,0	,40	1,0	10	0,000 B	0,0000 B
2	10	15	20	20 N	300	70	50	500 N	300	0,80	38,0	,60	2,0	10	0,000 B	0,0000 B
3	20	15	20	10 N	500	100	50	200 N	200	0,26	33,0	,40	3,0	10	0,000 B	0,0000 B
4	10	20	15	10 N	500	70	50	200 N	200	0,80	42,0	,50	2,0	20	0,000 B	0,0000 B
5	30	30	20	20	300	100	50	500 N	200	0,12	38,0	,40 L	1,0 N	10	0,000 B	0,0000 B
6	30	30	20	10 N	500	100	50	200 N	300	0,12	43,0	,40 L	1,0 N	10	0,000 B	0,0000 B
7	30	20	15	20 L	500	100	30	500 N	200	0,12	42,0	,40 L	1,0 N	10	0,000 B	0,0000 B
8	20	20	15	20 N	300	100	30	500 N	200	0,10	44,0	,40 L	1,0 N	10	0,000 B	0,0000 B
9	15	30	10	10 N	500	70	30	200 N	200	0,05	37,0	,50	1,0	10	0,000 B	0,0000 B
10	15	20	20	20 N	500	100	30	500	300	1,60	29,0	,50	4,0	20	0,000 B	0,0000 B
11	15	20	20	10 N	500	100	30	200 N	300	0,44	29,0	,60	1,0	10	0,000 B	0,0000 B
12	10	15	20	10 N	300	200	50	200 N	200	0,47	45,0	,50	1,0 L	10	0,000 B	0,0000 B
13	10	20	20	20 N	300	100	50	500 N	300	0,54	50,0	,60	2,0	10	0,000 B	0,0000 B
14	20	20	20	10 N	500	200	50	200 N	200	0,39	41,0	,60	1,0	20	0,000 B	0,0000 B
15	10	20	20	10 N	500	100	70	200	300	0,21	41,0	,70	1,0 L	10	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
16	41 49 21	119 38 7	5.0	.70	.70	1.00	3000	20	1500	1.5	20	30	30	70	5 N	20 L
17	41 51 1	119 38 18	2.0	.30	.50	.20	300	20	500	1.5	5	20	20	50	15	20 L
18	41 50 24	119 40 2	5.0	.50	.70	1.00	1000	15	700	1.5	15	20	15	50	5 N	20 L
19	41 50 26	119 40 4	5.0	.50	.70	1.00	1000	10	700	1.5	15	20	15	70	5 N	20 L
20	41 51 3	119 40 8	5.0	.50	.70	1.00	1000	20	700	1.5	15	50	20	50	5 L	20 L
21	41 50 6	119 39 38	5.0	1.00	1.50	.50	1500	50	1000	1.5	20	50	50	50	10	20 L
22	41 49 49	119 39 51	5.0	1.00	2.00	.50	1500	50	1000	2.0	20	50	30	50	10	20 L
23	41 49 45	119 39 48	5.0	1.00	1.50	.50	1000	50	1000	2.0	15	50	30	50	10	20 L
24	41 50 17	119 39 20	5.0	1.00	1.50	1.00	700	20	700	2.0	15	70	50	50	10	20 L
25	41 50 25	119 39 20	5.0	1.00	1.50	.70	1000	20	1000	2.0	15	15	30	50	10	20 L
26	41 50 21	119 38 39	7.0	1.00	1.50	1.00	1500	20	1000	2.0	15	15	50	50	10	20 L
		CAINIP MOUNTIAN SE 7.5 MINUTE QUADRANGLE														
1	41 52 4	119 16 54	5.0	1.00	1.00	.50	700	20	300	2.0	15	50	15	70	5 N	20 L
2	41 51 42	119 17 17	2.0	.50	.70	.30	300	20	500	2.0	10	50	20	50	5 N	20 L
3	41 51 55	119 17 29	3.0	.50	.70	.50	700	20	300	2.0	5	50	10	50	5 N	20 L
4	41 52 23	119 17 49	3.0	.50	.70	.50	700	20	500	2.0	20	50	20	50	5 N	20 L
5	41 52 27	119 17 53	3.0	.70	1.00	.30	700	20	300	2.0	10	50	15	50	5 N	20 L
6	41 51 47	119 16 45	3.0	.50	.70	.50	500	20	500	2.0	7	50	30	50	5 N	20 L
7	41 51 2	119 17 4	3.0	.50	.50	.50	1000	20	300	2.0	15	50	15	50	5 N	20 L
8	41 50 53	119 17 26	5.0	.70	1.00	.70	1000	20	700	2.0	20	70	20	50	5 N	20 L
9	41 48 56	119 18 59	3.0	.70	1.00	.50	300	20	500	2.0	5	20	15	50	5 N	20 L
10	41 45 47	119 21 55	7.0	1.00	1.00	1.00	1500	20	500	2.0	20	50	20	50	5 N	20 L
11	41 45 53	119 21 46	2.0	.50	.70	.30	300	30	700	2.0	5	50	20	30	5 N	20 L
12	41 46 48	119 21 55	7.0	1.50	1.00	1.00	1000	20	700	2.0	20	50	20	30	5 N	20 L
13	41 46 54	119 21 46	5.0	.70	.70	.50	500	20	500	2.0	7	50	30	50	5 N	20 L
14	41 46 32	119 21 59	5.0	.70	1.00	.30	700	30	700	2.0	15	50	20	50	5 N	20 L
15	41 52 19	119 15 5	3.0	.70	1.00	.30	700	50	300	2.0	10	20	10	50	5 L	20 L
16	41 52 23	119 15 6	3.0	.70	1.00	.50	1000	50	300	2.0	20	30	15	30	5 N	20 L
17	41 50 21	119 17 52	5.0	.70	1.50	.50	700	50	500	3.0	20	50	15	100	5 L	20 L
18	41 50 56	119 19 6	3.0	.50	.50	.30	1000	50	500	3.0	15	20	20	70	5 L	20 L
19	41 45 55	119 17 53	7.0	1.00	1.00	1.00	1500	20	700	1.5	15	50	30	50	5 N	20 L
20	41 45 57	119 17 35	5.0	1.00	1.00	.50	1000	20	700	1.0	15	50	30	50	5 N	20 L
21	41 50 57	119 18 38	5.0	.50	.70	.50	1000	50	500	2.0	20	50	20	70	5 N	20 L
22	41 51 51	119 19 9	3.0	.50	.70	.50	1500	50	700	3.0	20	30	20	70	5 L	20 L
23	41 51 55	119 19 8	3.0	.50	.70	.50	1000	50	500	3.0	15	20	15	70	5 N	20 L
24	41 49 6	119 17 52	3.0	.70	1.00	.50	700	50	500	2.0	15	30	15	50	5 N	20 L
25	41 49 35	119 19 37	3.0	.50	1.00	.30	1000	50	500	2.0	15	30	20	50	5 N	20 L
26	41 49 38	119 19 27	3.0	.70	1.00	.50	1000	50	700	2.0	20	50	20	50	5 N	20 L
27	41 49 46	119 19 14	3.0	.70	1.00	.50	1500	50	700	2.0	20	50	20	50	5 N	20 L
28	41 48 17	119 18 59	3.0	.70	1.50	.50	700	50	500	2.0	15	50	15	50	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
16	10	20	20	20 N	500	100	50	500 N	300	0,54	71,0	,60	1,0	20	0,000 B	0,0000 B
17	20	15	10	20 N	200	50	20	500 N	150	0,28	83,0	,40	1,0 L	30	0,000 B	0,0000 B
18	15	15	20	10 N	300	150	20	200 L	200	0,70	30,0	,50	20,0	60	0,000 B	0,0000 B
19	7	20	20	10 N	500	100	20	200 L	200	0,84	36,0	,60	20,0	30	0,000 B	0,0000 B
20	30	20	20	10 N	500	100	20	200 L	200	0,21	27,0	,40 L	6,0	20	0,000 B	0,0000 B
21	20	20	15	20 N	500	100	30	500	200	1,85	42,0	,50	3,0	30	0,000 B	0,0000 B
22	20	20	15	10 N	300	100	30	200 N	200	0,27	34,0	,50	1,0	40	0,000 B	0,0000 B
23	20	20	15	10 N	300	100	30	200 N	200	0,31	34,0	,40	1,0 N	30	0,000 B	0,0000 B
24	20	20	15	10 N	300	100	30	200 N	200	2,80	36,0	,40	3,0	50	0,000 B	0,0000 B
25	10	20	15	20 N	300	100	30	500 N	200	3,40	38,0	,50	1,0	60	0,000 B	0,0000 B
26	15	20	10	10 N	500	100	50	200 N	200	2,30	38,0	,50	1,0 N	40	0,000 B	0,0000 B
								CATNIP MOUNTIAN SE 7,5 MINUTE QUADRANGLE								
1	15	20	15	10 N	500	70	20	200 N	200	0,07	18,7	,40 L	1,0 L	80	0,000 B	0,0000 B
2	15	20	15	10 N	300	50	20	200 N	200	0,18	62,0	,40 L	1,0 L	10	0,000 B	0,0000 B
3	10	20	15	10 N	200	50	20	200 N	300	0,06	20,8	,40 L	1,0 L	20	0,000 B	0,0000 B
4	15	20	15	10 N	500	100	20	200 N	300	0,02	38,0	,40 L	1,0 L	10	0,000 B	0,0000 B
5	10	20	15	10 N	500	70	20	200 N	200	0,04	26,7	,40 L	1,0 L	20	0,000 B	0,0000 B
6	10	20	15	10 N	300	70	30	200 N	300	0,07	49,0	,40 L	1,0	40	0,000 B	0,0000 B
7	10	20	15	10 N	200	70	30	200 N	300	0,09	39,0	,40 L	1,0 L	40	0,000 B	0,0000 B
8	20	20	15	10 N	300	100	30	200 N	300	0,07	39,0	,40 L	1,0 L	20	0,000 B	0,0000 B
9	15	15	10	10 N	200	70	20	200 N	300	0,10	18,0	,40 L	1,0 L	20	0,000 B	0,0000 B
10	10	20	20	10 N	300	100	30	200 N	300	0,04	22,0	,40 L	1,0 L	60	0,000 B	0,0000 B
11	10	20	10	10 N	300	50	20	200 N	200	0,05	30,8	,40	1,0 L	10	0,000 B	0,0000 B
12	20	20	20	10 N	300	200	30	200 N	700	0,05	28,3	,40	1,0 N	30	0,000 B	0,0000 B
13	20	20	15	10 N	300	100	20	200 N	200	0,04	19,8	,40	1,0 L	20	0,000 B	0,0000 B
14	20	20	15	10 N	500	70	20	200 N	200	0,04	20,4	,40	1,0 N	20	0,000 B	0,0000 B
15	10	30	10	10 N	300	50	20	200 N	200	0,30	21,0	,40	1,0	10	0,000 B	0,0000 B
16	20	30	15	10 N	300	100	20	200 N	200	0,20	33,0	,40	1,0	30	0,000 B	0,0000 B
17	10	50	15	10 N	500	100	30	200 N	300	0,11	26,0	,40 L	1,0	40	0,000 B	0,0000 B
18	15	30	15	10 N	200	70	30	200 N	200	0,30	69,0	,60	1,0	10	0,000 B	0,0000 B
19	15	30	10	10 N	300	200	50	200 N	500	0,09	48,0	,40	1,0 L	10	0,000 B	0,0000 B
20	20	20	10	10 N	300	100	50	200 N	300	0,04	44,0	,40 L	1,0 L	10	0,000 B	0,0000 B
21	20	50	15	10 N	200	100	30	200 N	200	0,46	66,0	,70	1,0 N	40	0,000 B	0,0000 B
22	15	50	15	10 N	200	100	30	200 N	200	0,58	81,0	,70	1,0 L	20	0,000 B	0,0000 B
23	15	50	15	10 N	200	70	30	200 N	200	0,54	64,0	,60	1,0 N	20	0,000 B	0,0000 B
24	15	30	15	10 N	300	100	30	200 N	200	0,44	33,0	,40	1,0 L	30	0,000 B	0,0000 B
25	15	30	15	10 N	300	100	30	200 N	200	1,28	53,0	,40	1,0 L	20	0,000 B	0,0000 B
26	20	50	15	10 N	300	100	30	200 N	200	0,52	40,0	,40	1,0 L	20	0,000 B	0,0000 B
27	20	30	15	10 N	300	100	30	200 N	200	0,30	37,0	,40	1,0 L	20	0,000 B	0,0000 B
28	15	50	15	10 N	300	100	30	200 N	150	0,40	24,0	,40 L	1,0 L	20	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
29	41 48 16	119 19 3	2.0	.50	1.00	.30	500	50	700	2.0	15	30	15	50	5 N	20 L
30	41 48 5	119 18 42	2.0	.70	1.50	.30	700	50	500	2.0	10	50	15	50	5 N	20 L
31	41 47 53	119 18 47	7.0	.70	1.00	1.00 G	1000	30	700	1.0	20	50	20	50	5 N	20 L
32	41 46 55	119 19 45	5.0	1.00	1.00	.50	700	50	700	2.0	20	50	20	50	5 N	20 L
33	41 47 3	119 19 50	3.0	.70	1.00	.30	500	30	700	2.0	15	50	15	50	5 N	20 L
34	41 47 7	119 19 55	5.0	.70	1.00	.50	1000	50	500	2.0	20	50	20	70	5 N	20 L
35	41 46 18	119 20 16	5.0	.70	1.00	.50	1000	30	700	2.0	15	50	15	30	5 N	20 L
36	41 46 14	119 20 27	3.0	1.00	1.00	.30	1000	50	700	2.0	20	50	20	50	5 N	20 L
37	41 45 14	119 22 5	7.0	1.00	1.50	1.00	1000	30	700	2.0	30	50	20	30	5 N	20 L
38	41 47 3	119 16 57	5.0	1.00	1.00	.70	1500	20	700	1.5	15	50	20	70	5 N	20 L
39	41 46 50	119 16 51	5.0	1.00	1.00	.70	1000	20	700	2.0	15	50	30	70	5 N	20 L
40	41 46 54	119 16 47	5.0	1.00	1.00	.70	1500	20	700	2.0	15	50	20	70	5 N	20 L
41	41 46 58	119 15 51	5.0	1.00	1.00	.50	1000	20	700	2.0	10	70	30	70	5 N	20 L
42	41 46 11	119 15 15	5.0	1.00	1.00	.70	1500	20	700	2.0	20	50	20	70	5 N	20 L
43	41 45 41	119 15 14	5.0	1.00	1.00	.70	1500	20	700	2.0	10	70	15	50	5 N	20 L
44	41 45 46	119 15 15	5.0	1.00	1.00	.70	1000	20	700	2.0	15	20	15	70	5 N	20 L
45	41 47 33	119 18 57	3.0	1.00	2.00	.50	500	20	700	2.0	10	50	30	50	5 N	20 L
46	41 46 15	119 18 36	5.0	2.00	2.00	1.00	3000	20	500	2.0	20	70	20	50	5 N	20 L
47	41 47 5	119 16 42	3.0	1.00	.70	.50	2000	20	500	2.0	10	50	30	50	5 N	20 L
48	41 47 49	119 16 36	3.0	1.00	.70	.50	1500	20	700	2.0	20	70	30	70	5 N	20 L
49	41 47 44	119 16 27	3.0	1.00	1.00	.50	1000	20	700	2.0	20	50	50	50	5 N	20 L
50	41 48 2	119 15 30	3.0	.70	.70	.70	700	20	500	2.0	15	50	30	50	5 N	20 L
51	41 48 45	119 15 21	3.0	1.00	.70	.70	1500	20	500	2.0	20	100	30	30	5 N	20 L
52	41 47 35	119 15 44	5.0	1.00	1.00	.70	1500	30	700	2.0	20	50	30	70	5 N	20 L
53	41 47 11	119 16 35	3.0	.70	1.00	.15	700	70	300	3.0	7	10	20	50	5	30
54	41 46 17	119 17 53	3.0	.70	1.50	.20	1000	30	300	3.0	10	15	20	50	7	30
55	41 46 0	119 18 43	3.0	.70	1.00	.20	700	30	300	3.0	10	20	15	30	5 L	50
		HAWKS MOUNTIAN 7.5 MINUTE QUADRANGLE														
1	42 0 38	119 5 50	10.0	.30	.20	1.00	1000	20	200	1.0	20	50	20	50	5 N	20 L
1	42 0 38	119 5 50	20.0 G	1.00	.05	1.00 G	5000	10 L	150	1.0 N	20	50	20	50	5 N	20 L
1	42 0 38	119 5 50	20.0	2.00	.50	1.00 G	5000	10 L	700	1.0 N	20	50	20	50	5 N	20 L
2	42 0 41	119 5 39	5.0	.30	.20	1.00	1000	15	300	1.0	20	30	20	50	5 N	20 L
3	42 0 7	119 4 9	3.0	.50	.50	.30	500	20	500	1.5	15	50	20	70	5 N	20 L
4	42 0 10	119 3 5	3.0	.50	.50	.30	700	20	500	1.5	20	30	20	50	5 N	20 L
		IDAHO CANYON 15 MINUTE QUADRANGLE														
1	41 43 48	118 55 59	5.0	.50	.70	.70	1000	30	300	2.0	10	50	10	100	5 N	20 L
2	41 43 11	118 56 26	3.0	.70	.70	.50	1000	20	500	2.0	10	50	20	70	5 N	20 L
3	41 42 42	118 56 36	3.0	.70	.50	.70	1000	30	500	2.0	7	50	15	70	5 N	20 L
4	41 39 38	118 58 4	7.0	1.00	2.00	1.00	1500	30	500	1.0	20	50	30	70	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
29	20	30	15	10 N	300	70	30	200 N	200	0,46	22,0	,40	1,0 L	20	0,000 B	0,0000 B
30	20	50	15	10 N	500	70	30	200 N	300	0,32	24,0	,40 L	1,0 L	30	0,000 B	0,0000 B
31	20	30	20	10 N	500	150	30	200 N	300	0,42	26,0	,40 L	1,0 L	20	0,000 B	0,0000 B
32	30	50	15	10 N	300	100	50	200 N	300	0,70	38,0	,40	1,0 L	30	0,000 B	0,0000 B
33	20	30	15	10 N	300	100	30	200 N	200	0,46	20,0	,40	1,0	20	0,000 B	0,0000 B
34	20	50	15	10 N	200	150	70	200 N	1000	0,24	27,0	,40	1,0 L	20	0,000 B	0,0000 B
35	20	30	15	10 N	300	100	30	200 N	200	0,20	21,0	,40	1,0 L	10	0,000 B	0,0000 B
36	20	50	15	10 N	500	100	30	200 N	200	0,16	25,0	,40 L	1,0	30	0,000 B	0,0000 B
37	20	50	15	10 N	500	150	30	200 N	200	0,15	22,0	,40	1,0	20	0,000 B	0,0000 B
38	15	20	15	10 N	300	100	30	200 N	300	0,12	35,0	,70	1,0 N	10	0,000 B	0,0000 B
39	20	20	10	10 N	300	100	50	200 N	300	0,06	39,0	,60	1,0 N	10	0,000 B	0,0000 B
40	20	20	15	10 N	300	100	50	200 N	300	0,04	36,0	,60	1,0 N	40	0,000 B	0,0000 B
41	20	20	15	10 N	300	100	50	200 N	300	0,09	40,0	,60	1,0 N	20	0,000 B	0,0000 B
42	20	20	15	10 N	500	100	50	200 N	300	0,11	36,0	,60	1,0 N	30	0,000 B	0,0000 B
43	15	20	15	10 N	500	100	50	200 N	300	0,18	27,0	,60	1,0 N	30	0,000 B	0,0000 B
44	10	20	15	10 N	300	100	50	200 N	300	0,31	22,0	,40	1,0 N	20	0,000 B	0,0000 B
45	20	30	15	10 N	700	70	50	200 N	500	0,06	26,0	,40 L	1,0 L	10	0,000 B	0,0000 B
46	20	30	15	10 N	500	200	70	200 N	500	0,02 N	20,0	,40	1,0 N	10	0,000 B	0,0000 B
47	20	30	10	10 N	300	100	50	200 N	300	0,04	37,0	,60	1,0 L	10	0,000 B	0,0000 B
48	20	20	20	10 N	300	150	50	200 N	300	0,12	32,0	,40	1,0 N	10	0,000 B	0,0000 B
49	20	20	20	10 N	200	100	70	200 N	300	0,05	46,0	,80	1,0 L	10	0,000 B	0,0000 B
50	20	20	20	10 N	300	100	70	200 N	300	0,05	37,0	,60	1,0 L	30	0,000 B	0,0000 B
51	30	20	20	10 N	300	150	50	200 N	300	0,04	36,0	,60	1,0 L	20	0,000 B	0,0000 B
52	20	50	20	10 N	500	100	70	200 N	500	0,04	29,0	,60	1,0 N	20	0,000 B	0,0000 B
53	15	20	7	10 L	200	50	30	200 N	300	0,02	28,0	1,00	0,5 L	10	0,000 B	0,0000 B
54	20	20	7	10 N	300	50	30	200 N	300	0,02 L	30,0	1,00	0,5 L	10	0,000 B	0,0000 B
55	20	15	7	10 L	200	50	30	200 N	200	0,04	29,0	1,00 L	0,5 L	10	0,000 B	0,0000 B
								HAWKS MOUNTIAN 7.5 MINUTE QUADRANGLE								
1	5	10	20	10 N	200	150	50	300	1000	0,03	39,0	,40	1,0 N	10	0,000 B	0,0000 B
1	10	10	20	10 N	100 N	300	30	200 N	1000 G	0,03	216,0	,50	1,0 N	200	0,000 B	0,0000 B
1	10	15	20	10 N	100 L	70	50	200 N	1000 G	0,05	30,0	,40 L	1,0 N	10	0,000 B	0,0000 B
2	5	20	20	10 N	200	100	30	300	500	0,03	43,0	,40	1,0 N	10	0,000 B	0,0000 B
3	20	15	15	10 N	300	50	30	200 N	100	0,03	27,0	,40	1,0 N	20	0,000 B	0,0000 B
4	20	20	15	10 N	300	70	30	200 N	300	0,03	28,0	,40	1,0 N	20	0,000 B	0,0000 B
								IDAHO CANYON 15 MINUTE QUADRANGLE								
1	15	20	15	10 N	200	100	50	200 N	200	0,03	22,0	,04 L	1,0 N	10	0,000 B	0,0000 B
2	20	20	10	10 N	200	100	50	200 N	200	0,06	39,0	,40	1,0 N	20	0,000 B	0,0000 B
3	15	20	10	10 N	200	100	50	200 N	300	0,06	27,0	,40 L	1,0 N	40	0,000 B	0,0000 B
4	20	30	20	10 N	300	100	30	200 N	500	0,08	30,0	,04 L	1,0 N	30	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
5	41 39 15	118 58 53	10.0	1.00	1.00	1.00 G	2000	20	500	1.0	20	100	30	70	5 N	20 L
6	41 43 18	118 53 20	1.0	.30	.50	.15	200	20	100	1.0	10	20	5	50	5 N	20 L
7	41 42 51	118 54 11	5.0	.50	.70	.30	300	30	200	1.5	10	50	10	100	5 N	20 L
8	41 41 47	118 54 47	5.0	1.00	1.00	1.00	1500	20	500	1.5	20	50	30	100	5 N	20 L
9	41 40 0	118 55 17	5.0	.70	1.00	1.00	1500	20	500	1.5	20	50	30	50	5 N	20 L
10	41 39 26	118 54 32	5.0	1.00	.70	.70	1000	30	500	1.5	20	50	30	50	5 N	20 L
11	41 39 25	118 53 52	3.0	1.00	.70	.50	1000	20	500	1.5	20	70	20	50	5 N	20 L
12	41 39 18	118 52 50	5.0	1.00	.70	.70	1000	30	700	1.5	20	50	30	50	5 N	20 L
13	41 38 31	118 52 36	3.0	.70	.70	.70	1000	20	500	1.5	20	50	20	50	5 N	20 L
14	41 37 49	118 52 21	3.0	.70	1.00	.50	1000	30	700	1.5	20	50	20	50	5 N	20 L
15	41 37 2	118 52 5	7.0	.70	.70	1.00	1500	20	500	1.5	20	50	15	50	5 N	20 L
16	41 35 27	118 52 30	2.0	.50	.50	.20	500	20	500	1.5	20	30	10	50	5 N	20 L
17	41 35 12	118 52 46	5.0	1.00	1.00	1.00	1500	20	1000	1.5	20	50	20	50	5 L	20 L
18	41 35 13	118 52 41	2.0	.70	.70	.30	700	20	700	2.0	15	50	15	50	5 N	20 L
19	41 39 34	118 59 58	5.0	1.00	1.00	.50	1000	30	500	2.0	20	50	20	50	5 N	20 L
20	41 39 33	118 59 38	3.0	.70	.70	.30	1000	30	500	2.0	20	30	30	50	5 N	20 L
21	41 39 42	118 59 38	3.0	.70	1.00	.30	1000	30	500	2.0	20	50	20	50	5 N	20 L
22	41 40 32	118 58 59	5.0	.70	1.00	.50	1500	30	500	2.0	20	50	30	70	5 N	20 L
23	41 36 11	118 58 40	5.0	1.00	.70	.50	1500	50	700	2.0	20	50	20	100	5 N	20 L
24	41 35 43	118 57 55	5.0	1.00	.70	.50	1500	50	700	2.0	20	50	30	70	5 N	20 L
25	41 36 37	118 56 44	5.0	1.00	1.00	.50	2000	50	700	2.0	20	70	30	50	5 N	20 L
26	41 36 42	118 56 39	5.0	1.00	.70	.50	1000	50	700	2.0	20	70	30	50	5 N	20 L
27	41 36 51	118 56 49	7.0	1.00	.70	.50	1000	50	700	2.0	30	50	30	50	15	20 L
28	41 41 42	118 54 50	5.0	.70	.50	.50	1000	15	500	2.0	20	50	20	50	5 N	20 L
29	41 44 34	118 52 1	3.0	1.00	2.00	.30	700	50	500	5.0	10	30	15	70	5 L	20 N
30	41 42 16	118 54 50	3.0	1.50	2.00	.30	1000	100	500	3.0	15	20	15	70	5	20 N
31	41 41 4	118 56 30	3.0	1.00	2.00	.30	700	30	300	3.0	15	20	15	50	5 N	20 N
32	41 39 15	118 56 9	3.0	1.00	1.50	.50	1000	30	500	3.0	10	30	15	50	5 N	20 N
33	41 37 51	118 56 30	3.0	1.00	1.50	.20	1500	30	500	2.0	10	20	20	20 N	5 N	20 N
34	41 38 0	118 56 35	3.0	1.00	2.00	.20	1000	50	500	3.0	15	20	20	70	5 N	20 N
35	41 36 38	118 59 39	3.0	.70	2.00	.15	700	30	500	3.0	7	20	15	50	5 N	20 N
36	41 37 36	118 58 45	3.0	.70	1.50	.30	700	50	500	3.0	15	15	15	50	5 N	20 N
37	41 37 48	118 59 9	3.0	1.00	1.50	.20	700	50	300	2.0	20	50	20	50	5 N	20 N
		NUT MOUNTIAN 7.5 MINUTE QUADRANGLE														
1	41 37 22	119 24 3	7.0	1.50	.70	1.00	1500	20	500	1.5	20	50	20	70	5 N	20 L
2	41 37 13	119 24 5	5.0	.70	1.00	.50	1000	20	700	1.5	20	50	15	50	5 N	20 L
3	41 37 33	119 24 6	7.0	1.00	1.00	.50	1000	20	1000	1.0	20	50	20	50	5 N	20 L
4	41 36 55	119 24 2	10.0	1.50	1.00	1.00	1500	15	700	1.0	50	150	20	150	5 N	20 L
5	41 36 56	119 23 39	5.0	1.00	1.00	.50	700	20	700	2.0	7	50	15	50	5 N	20 L
6	41 36 42	119 23 26	7.0	1.00	1.00	1.00	1000	20	500	1.0	20	200	20	100	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
5	20	20	20	10 N	200	150	30	200 N	300	0,12	44,0	,04 L	1,0 N	50	0,000 B	0,0000 B
6	15	10 N	10	10 N	200	50	20	200 N	100	0,03	25,0	,70	1,0 L	20	0,000 B	0,0000 B
7	15	20	20	10 N	300	50	50	200 N	200	0,11	16,0	,40 L	1,0 L	20	0,000 B	0,0000 B
8	30	20	20	10 N	300	100	50	200 N	300	0,05	29,0	,40	1,0 L	20	0,000 B	0,0000 B
9	20	20	20	10 N	500	100	50	200 N	300	0,04	34,0	,40	1,0 L	20	0,000 B	0,0000 B
10	30	20	20	10 N	500	100	30	200 N	200	0,04	35,0	,50	1,0 L	20	0,000 B	0,0000 B
11	20	20	20	10 N	500	150	30	200 N	300	0,03	27,0	,40	1,0 L	40	0,000 B	0,0000 B
12	30	30	20	10 N	300	100	50	200 N	300	0,03	32,0	,50	1,0 L	30	0,000 B	0,0000 B
13	20	20	20	10 N	500	100	30	200 N	200	0,05	30,0	,40	1,0 L	20	0,000 B	0,0000 B
14	20	20	20	10 N	500	100	50	200 N	200	0,04	33,0	,50	1,0 L	20	0,000 B	0,0000 B
15	20	20	15	10 N	300	150	50	200 N	300	0,04	29,0	,40	1,0 L	20	0,000 B	0,0000 B
16	15	20	20	10 N	300	50	20	200 N	100	0,04	21,0	,40 L	1,0 L	20	0,000 B	0,0000 B
17	15	30	20	10 N	300	100	50	200 N	200	0,03	19,0	,40 L	1,0 L	20	0,000 B	0,0000 B
18	15	20	10	10 N	300	50	30	200 N	150	0,03	25,0	,40	1,0 N	10	0,000 B	0,0000 B
19	20	30	20	10 N	500	70	50	200 N	300	0,03	21,0	,40	1,0 L	20	0,000 B	0,0000 B
20	20	30	20	10 N	500	50	50	200 N	300	0,04	32,0	,50	1,0	10 L	0,000 B	0,0000 B
21	20	30	20	10 N	300	70	50	200 N	300	0,04	35,0	,50	1,0	20	0,000 B	0,0000 B
22	30	30	20	10 N	500	100	50	200 N	500	0,03	31,0	,50	1,0	20	0,000 B	0,0000 B
23	30	20	20	10 N	500	150	70	200 N	300	0,05	45,0	,70	1,0 L	20	0,000 B	0,0000 B
24	30	30	20	10 N	500	200	70	200 N	300	0,06	38,0	,50	1,0 L	20	0,000 B	0,0000 B
25	20	20	15	10 N	500	200	50	200 N	300	0,03	33,0	,50	1,0 L	10	0,000 B	0,0000 B
26	20	20	15	10 N	500	150	30	200 N	300	0,04	36,0	,60	1,0 L	30	0,000 B	0,0000 B
27	50	20	20	10 N	500	150	50	200 N	300	0,05	36,0	,50	1,0	20	0,000 B	0,0000 B
28	20	20	15	10 N	300	200	30	200 N	200	0,03	26,0	,40	1,0 L	20	0,000 B	0,0000 B
29	15	30	10	10 N	200	100	30	200 N	150	0,04	28,0	1,00 N	0,5 N	20	0,000 B	0,0000 B
30	30	30	10	10 N	200	70	50	200 N	300	0,02 L	32,0	1,00 N	0,5 L	10	0,000 B	0,0000 B
31	15	15	7	10 N	200	50	30	200 N	200	0,04	31,0	1,00 N	0,5 L	20	0,000 B	0,0000 B
32	15	20	10	10 N	300	70	30	200 N	200	0,02	28,0	1,00 L	0,5 L	10	0,000 B	0,0000 B
33	20	30	7	10 N	300	70	20	200 N	200	0,06	28,0	1,00 L	0,5 L	20	0,000 B	0,0000 B
34	20	30	10	10 N	200	70	30	200 N	150	0,04	42,0	1,00	0,5 L	10 N	0,000 B	0,0000 B
35	15	15	7	10 N	200	50	30	200 N	150	0,04	31,0	1,00	0,5 L	10	0,000 B	0,0000 B
36	15	20	7	10 N	200	50	30	200 N	150	0,08	36,0	,00 B	0,5 L	10	0,000 B	0,0000 B
37	20	30	10	10 N	200	70	30	200 N	200	0,06	40,0	1,00	0,5 L	10	0,000 B	0,0000 B
NUT MOUNTIAN 7,5 MINUTE QUADRANGLE																
1	15	30	10	10 N	500	150	50	200 N	500	0,09	30,0	,04 L	1,0 N	50	0,000 B	0,0000 B
2	15	20	10	10 N	500	100	20	200 N	200	0,05	28,0	,40	1,0	40	0,000 B	0,0000 B
3	20	20	20	10 N	700	100	30	200 N	300	0,07	30,0	,40	1,0 N	60	0,000 B	0,0000 B
4	50	20	20	10 N	500	200	50	200 N	300	0,03	47,0	,50	1,0 N	20	0,000 B	0,0000 B
5	5	20	15	10 N	500	150	50	200 N	500	0,04	25,0	,40	1,0	20	0,000 B	0,0000 B
6	20	20	15	10 N	300	200	50	200 N	300	0,04	27,0	,04 L	1,0 N	10	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
7	41 36 24	119 22 46	7.0	1.00	1.00	1.00	1000	20	700	2.0	15	50	20	70	5 N	20 L
8	41 35 48	119 23 11	5.0	1.00	.70	.70	1000	20	700	2.0	15	20	10	70	5 N	20 L
9	41 35 7	119 23 51	7.0	1.00	1.50	1.00	1000	20	1000	1.5	20	50	20	70	5 N	20 L
10	41 35 34	119 23 9	7.0	1.50	1.50	1.00	1500	20	1000	1.0	20	20	20	50	5 N	20 L
11	41 35 44	119 23 45	5.0	1.00	1.00	.70	1000	20	1000	2.0	10	100	20	50	5 N	20 L
12	41 36 3	119 24 3	5.0	1.00	1.00	.70	1000	20	1000	1.5	15	70	20	70	5 N	20 L
13	41 36 38	119 24 38	7.0	1.00	2.00	1.00	1000	20	1000	1.5	20	50	30	50	5 N	20 L
14	41 35 41	119 22 50	5.0	1.00	1.50	1.00	1500	20	1000	2.0	20	70	30	50	5 N	20 L
15	41 35 56	119 22 41	5.0	1.00	1.50	.70	1500	20	1000	2.0	20	50	30	70	5 N	20 L
16	41 34 27	119 22 37	5.0	.70	1.00	.30	1000	30	700	2.0	15	50	20	50	5 N	20 L
		RYE CREEK 7.5 MINUTE QUADRANGLE														
1	41 56 21	119 30 51	5.0	1.00	1.00	.70	1000	20	700	2.0	20	100	30	50	5 N	20 L
2	41 56 39	119 30 15	5.0	1.00	2.00	.70	1000	20	700	1.5	10	50	20	20	5 N	20 L
3	41 56 7	119 31 18	3.0	1.00	2.00	.50	1000	20	700	2.0	15	50	20	50	5 N	20 L
4	41 58 9	119 31 9	5.0	1.00	1.00	1.00	1000	20	500	2.0	20	50	20	20	5 N	20 L
5	41 52 53	119 35 36	5.0	1.00	1.50	1.00	1000	20	700	1.0	15	50	20	50	5 N	20 L
6	41 52 54	119 35 32	7.0	1.00	1.50	1.00	1500	30	700	1.0	15	30	30	50	5 N	20 L
7	41 53 38	119 34 46	5.0	1.00	.70	.30	500	30	700	1.5	5 L	50	30	50	5 N	20 L
8	41 53 48	119 34 58	7.0	1.00	1.00	1.00	1500	15	700	1.0	20	50	20	50	5 N	20 L
9	41 53 53	119 35 21	5.0	1.00	.70	.30	700	20	700	1.5	15	70	30	50	5 N	20 L
10	41 54 6	119 35 20	7.0	1.50	1.00	1.00	1500	20	700	1.0	30	70	50	50	5 N	20 L
11	41 54 6	119 35 7	7.0	1.00	1.00	1.00	1500	20	500	1.0	50	100	20	50	5 N	20 L
12	41 53 54	119 36 35	7.0	1.00	1.00	.50	1000	20	700	1.0	30	100	50	50	5 N	20 L
13	41 53 49	119 36 51	5.0	1.00	1.00	.50	500	20	700	1.0	20	100	30	50	5 N	20 L
14	41 53 45	119 36 47	5.0	1.00	2.00	.50	1000	20	500	1.0	20	100	30	50	5 N	20 L
15	41 53 52	119 36 10	7.0	1.50	1.00	1.00	1500	20	700	1.0	50	100	30	50	5 N	20 L
16	41 53 53	119 36 20	5.0	1.50	1.50	.70	1500	20	700	1.0	30	100	30	50	5 N	20 L
17	41 54 7	119 35 53	5.0	1.50	1.00	.50	1500	20	700	1.0	50	100	30	50	5 N	20 L
18	41 54 11	119 36 7	5.0	1.00	1.00	.50	500	20	700	1.0	20	70	30	50	5 N	20 L
19	41 54 20	119 36 6	5.0	1.50	1.50	.50	700	20	700	1.0	20	50	30	70	5 N	20 L
20	41 58 14	119 30 2	5.0	1.00	1.00	.50	700	20	700	1.5	50	70	30	50	5 N	20 L
21	41 57 38	119 32 8	5.0	1.00	1.00	.30	1000	15	1000	1.5	50	70	30	50	5 N	20 L
22	41 57 38	119 33 39	5.0	1.00	1.00	.50	1000	20	700	1.0	50	70	30	50	5 N	20 L
23	41 57 42	119 33 39	5.0	1.00	1.00	.50	1000	20	700	1.0	30	100	30	50	5 N	20 L
24	41 55 37	119 33 47	5.0	1.00	1.00	.50	1000	20	700	1.5	20	50	30	50	5 N	20 L
25	41 54 20	119 32 35	5.0	1.00	1.00	.50	1000	20	700	1.0	20	70	50	50	5 N	20 L
26	41 56 38	119 35 53	5.0	1.00	1.50	.50	1500	20	1000	1.0	30	50	30	50	5 N	20 L
		RAILROAD POINT 15 MINUTE QUADRANGLE														
1	41 47 49	118 59 26	10.0	1.50	1.50	1.00 G	1500	20	500	1.0 N	30	150	10	20	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
7	20	20	15	10 N	500	150	50	200 N	300	0.04	41.0	.40	1.0 N	40	0.000 B	0.0000 B
8	5	30	10	10 N	200	100	50	200 N	300	0.04	25.0	.40	1.0 L	60	0.000 B	0.0000 B
9	20	20	20	10 N	500	150	50	200 N	500	0.02	28.0	.40	1.0 N	20	0.000 B	0.0000 B
10	20	30	20	10 N	500	200	30	200 N	300	0.03	38.0	.40	1.0 N	20	0.000 B	0.0000 B
11	10	20	15	10 N	300	100	30	200 N	300	0.04	30.0	.50	1.0	40	0.000 B	0.0000 B
12	15	20	20	10 N	500	150	50	200 N	300	0.05	24.0	.40	1.0 N	50	0.000 B	0.0000 B
13	20	20	20	10 N	500	100	30	200 N	300	0.02	31.0	.40	1.0 N	30	0.000 B	0.0000 B
14	20	20	20	10 N	500	100	50	200 N	500	0.05	31.0	.40 L	1.0 N	30	0.000 B	0.0000 B
15	20	20	20	100	500	100	50	200 N	300	0.08	47.0	.40	1.0 N	30	0.000 B	0.0000 B
16	20	20	15	10 N	300	100	50	200 N	200	0.03	39.0	.04 L	1.0 L	40	0.000 B	0.0000 B
RYE CREEK 7.5 MINUTE QUADRANGLE																
1	30	20	20	10 N	500	100	20	200 N	200	0.02	31.0	.60	1.0 L	20	0.000 B	0.0000 B
2	20	15	15	10 N	300	100	15	200 N	200	0.02	12.0	.40 L	1.0 N	20	0.000 B	0.0000 B
3	20	20	10	10 N	500	100	20	200 N	150	0.02	26.9	.40 L	1.0 N	10	0.000 B	0.0000 B
4	30	20	15	10 N	500	100	20	200 N	150	0.02	24.0	.40	1.0 N	10	0.000 B	0.0000 B
5	20	20	15	10 N	500	100	20	200 N	300	0.12	22.0	.40 L	1.0 L	10	0.000 B	0.0000 B
6	15	20	15	10 N	500	100	20	200 N	200	0.25	35.0	.40	1.0 L	10	0.000 B	0.0000 B
7	20	10	15	10 N	200	100	20	200 N	150	0.09	32.0	.50	1.0 L	20	0.000 B	0.0000 B
8	15	20	20	10 N	500	100	30	200 N	200	0.17	22.0	.40 L	1.0 L	20	0.000 B	0.0000 B
9	30	15	20	10 N	300	100	20	200 N	150	0.09	45.0	.40	1.0 L	20	0.000 B	0.0000 B
10	50	20	20	10 N	500	150	20	200 N	200	0.05	29.0	.40	1.0 L	20	0.000 B	0.0000 B
11	50	20	20	10 N	500	150	30	200 N	200	0.09	28.0	.40	1.0 L	10	0.000 B	0.0000 B
12	50	20	20	10 N	300	150	30	200 N	200	0.05	46.0	.50	1.0 L	20	0.000 B	0.0000 B
13	50	20	20	10 N	300	150	30	200 N	200	0.06	45.0	.40 L	1.0 L	20	0.000 B	0.0000 B
14	50	20	20	10 N	500	100	30	200 N	200	0.06	36.0	.40	1.0 L	10	0.000 B	0.0000 B
15	70	20	20	10 N	500	200	20	200 N	200	0.06	34.0	.40 L	1.0 L	20	0.000 B	0.0000 B
16	50	20	20	10 N	500	150	20	200 N	200	0.05	32.0	.40	1.0 L	10	0.000 B	0.0000 B
17	50	20	20	10 N	500	100	20	200 N	100	0.04	30.0	.40 L	1.0 L	20	0.000 B	0.0000 B
18	30	20	20	10 N	500	100	30	200 N	200	0.03	24.0	.40 L	1.0 L	10	0.000 B	0.0000 B
19	20	20	20	10 N	500	100	20	200 N	200	0.04	25.0	.40 L	1.0 L	10	0.000 B	0.0000 B
20	50	20	30	10 N	500	150	50	200 N	200	0.06	33.0	.50	1.0 N	10 L	0.000 B	0.0000 B
21	30	20	20	10 N	500	100	30	200 N	200	0.11	31.0	.40	1.0 N	20	0.000 B	0.0000 B
22	50	20	20	10 N	500	150	30	200 N	200	0.05	32.0	.50	1.0 N	40	0.000 B	0.0000 B
23	50	20	20	10 N	500	100	30	200 N	200	0.06	30.0	.40	1.0 N	20	0.000 B	0.0000 B
24	50	20	20	10 N	500	100	30	200 N	200	0.16	32.0	.50	1.0 N	30	0.000 B	0.0000 B
25	50	20	20	10 N	500	100	50	200 N	200	0.06	28.0	.50	1.0 N	20	0.000 B	0.0000 B
26	30	20	20	10 N	700	100	30	200 N	200	0.04	21.0	.50	1.0 N	10	0.000 B	0.0000 B
RAILROAD POINT 15 MINUTE QUADRANGLE																
1	30	20	30	10 N	500	20	20	200 N	70	0.18	31.0	.50	1.0 N	10	0.000 B	0.0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
2	41 51 19	118 49 44	7.0	1.50	3.00	1.00	1000	20	1000	1.0 L	15	50	50	20	5 N	20 L
3	41 50 41	118 49 50	3.0	1.00	2.00	.50	1000	30	1000	2.0	10	50	15	100	5 N	20 L
4	41 49 53	118 50 3	3.0	.70	2.00	.50	700	20	700	2.0	10	50	10	150	5 N	20 L
5	41 48 39	118 51 37	15.0	.70	2.00	1.00 G	2000	20	1000	1.0	15	50	30	50	5 N	20 L
6	41 48 47	118 51 34	15.0	1.50	3.00	1.00 G	2000	20	1000	1.0 L	20	50	30	20	5 N	20 L
7	41 48 57	118 51 28	10.0	1.00	5.00	.70	700	30	1000	1.0	15	20	50	50	5 N	20 L
8	41 48 59	118 51 38	7.0	1.00	2.00	.70	1000	30	700	3.0	10	20	30	50	5 N	20 L
9	41 48 20	118 51 59	5.0	.30	.50	.50	1000	50	500	3.0	5	10 L	10	70	5 N	20 L
10	41 47 57	118 51 57	5.0	.50	1.50	.50	700	30	700	2.0	10	30	30	50	5 N	20 L
11	41 46 58	118 58 45	2.0	.50	.50	.20	1000	70	200	5.0	5	10	5	50	7	20 L
12	41 46 58	118 52 5	10.0	.70	2.00	1.00	1000	50	700	2.0	15	50	30	50	5 N	20 L
13	41 46 55	118 53 30	10.0	1.00	2.00	1.00	1000	50	700	2.0	15	20	20	70	5 L	20 L
14	41 46 50	118 53 48	7.0	1.00	2.00	1.00	1000	50	700	2.0	15	50	20	50	5 N	20 L
15	41 46 36	118 54 1	10.0	1.00	1.50	1.00	1500	50	500	2.0	10	30	20	50	5 N	20 L
16	41 46 0	118 54 57	7.0	1.50	2.00	.70	1000	50	700	1.5	20	50	30	50	5 N	20 L
17	41 46 5	118 59 13	3.0	.70	1.00	.20	700	70	300	3.0	15	50	7	50	5	20 L
18	41 45 50	118 59 11	3.0	.70	1.00	.20	1000	70	500	3.0	15	30	7	150	10	20 L
19	41 45 46	118 59 17	3.0	.70	1.00	.30	1000	50	300	3.0	15	50	7	150	5	20 L
20	41 45 57	118 59 8	5.0	1.00	2.00	1.00	1000	50	700	1.5	20	70	10	70	5 L	20 L
21	41 52 55	118 56 39	3.0	1.00	.70	1.00	1000	30	500	2.0	15	50	15	100	5 L	20 L
22	41 53 9	118 56 18	5.0	1.00	1.00	.70	1500	30	700	1.5	20	50	30	70	5 N	20 L
23	41 52 50	118 55 32	3.0	.70	.70	.50	1000	20	700	1.0	15	50	20	50	5 N	20 L
24	41 52 45	118 55 12	10.0	2.00	1.50	1.00	1500	20	1000	1.0	20	50	30	50	5 N	20 L
25	41 52 5	118 54 11	7.0	1.50	1.50	1.00	2000	20	700	1.0	20	50	30	70	5 N	20 L
26	41 50 48	118 52 50	5.0	1.50	1.50	1.00	2000	20	700	1.0	20	50	30	70	5 N	20 L
27	41 51 50	118 55 32	5.0	1.50	1.00	1.00	2000	20	700	2.0	20	50	20	70	5 N	20 L
28	41 49 45	118 53 40	5.0	1.50	2.00	1.00	2000	20	1000	1.5	30	200	20	100	5 N	20 L
29	41 51 45	118 54 33	7.0	1.50	1.50	1.00	1500	20	700	1.0	20	70	30	50	5 N	20 L
30	41 51 19	118 54 37	5.0	1.50	1.50	1.00	1500	20	1000	1.5	20	100	30	70	5 N	20 L
31	41 51 25	118 54 15	3.0	.50	.70	.50	1000	20	500	2.0	10	50	20	50	5 N	20 L
32	41 51 53	118 54 15	7.0	1.00	1.00	1.00	1500	20	700	2.0	15	50	30	70	5 N	20 L
33	41 55 54	118 58 50	10.0	2.00	1.50	1.00	1500	20	700	1.0	30	70	30	50	5 N	20 L
34	41 56 18	118 56 59	5.0	1.50	1.00	1.00	1000	20	700	1.0	20	70	20	50	5 N	20 L
35	41 57 39	118 55 22	5.0	2.00	1.50	1.00	1000	20	700	1.0	20	50	30	50	5 N	20 L
36	41 58 35	118 55 53	7.0	2.00	2.00	1.00	1500	20	700	1.0 L	20	70	30	50	5 N	20 L
37	41 58 58	118 55 31	5.0	1.50	2.00	.70	1000	20	700	1.0	15	50	20	50	5 N	20 L
38	41 59 26	118 57 42	7.0	1.50	1.50	1.00	1000	20	700	1.0	50	50	30	50	5 N	20 L
39	41 45 46	118 53 26	5.0	.70	1.00	.70	1000	30	500	2.0	10	50	15	100	5 N	20 L
40	41 48 24	118 51 56	5.0	.70	.70	.50	1500	20	300	2.0	10	20	20	50	5 N	20 L
41	41 48 23	118 52 8	5.0	.50	.70	1.00	1500	15	500	2.0	10	50	20	100	5 N	20 L
42	41 48 20	118 52 13	3.0	.50	.70	.50	1000	20	200	2.0	10	20	20	100	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
2	50	20	20	10 N	500	300	20	200 N	300	0,10	34,0	,60	1,0 L	20	0,000 B	0,0000 B
3	15	20	10	10 N	500	100	50	200 N	300	0,03	34,0	,60	1,0 L	20	0,000 B	0,0000 B
4	15	30	10	10 N	500	50	50	200 N	200	0,03	27,0	,50	10,0	20	0,000 B	0,0000 B
5	10	30	15	10 N	500	300	50	200	500	0,30	53,0	,60	15,0	20	0,000 B	0,0000 B
6	20	30	20	10 N	700	500	50	200 N	500	0,05	30,0	,50	2,0	10	0,000 B	0,0000 B
7	20	30	20	10 N	700	200	50	200 N	500	0,05	18,0	,50	2,0	10	0,000 B	0,0000 B
8	15	20	10	10 N	500	100	50	200 N	500	0,10	22,0	,40	3,0	10	0,000 B	0,0000 B
9	5 L	30	5	10 N	200	50	100	200 N	300	0,03	18,0	,40	5,0	60	0,000 B	0,0000 B
10	15	30	15	10 N	500	200	30	200 N	300	0,10	25,0	,60	10,0	20	0,000 B	0,0000 B
11	5 L	70	7	10 N	100	50	50	200 N	150	0,25	18,0	,50	1,0 L	20	0,000 B	0,0000 B
12	30	30	15	10 N	500	200	50	200 N	300	0,03	33,0	,50	1,0	20	0,000 B	0,0000 B
13	20	30	15	10 N	300	150	70	200 N	300	0,03	27,0	,40 L	1,0 L	10 L	0,000 B	0,0000 B
14	30	30	15	10 N	500	150	50	200 N	300	0,03	23,0	,40 L	1,0 L	10	0,000 B	0,0000 B
15	20	30	10	10 N	500	200	50	200 N	500	0,02	31,0	,70	1,0 L	10	0,000 B	0,0000 B
16	30	30	15	10 N	500	200	50	200 N	300	0,02	23,0	,40 L	1,0 L	20	0,000 B	0,0000 B
17	20	50	15	10 N	200	50	30	200 N	200	0,12	23,0	,60	1,0 L	30	0,000 B	0,0000 B
18	15	50	15	10 N	300	50	50	200 N	200	0,15	20,0	,50	1,0 L	20	0,000 B	0,0000 B
19	10	30	15	10 N	300	70	30	200 N	200	0,03	21,0	,40	1,0 L	20	0,000 B	0,0000 B
20	20	30	20	10 N	700	150	20	200 N	300	0,30	24,0	,40	1,0 L	30	0,000 B	0,0000 B
21	15	20	15	10 N	300	100	50	200 N	300	0,22	18,0	,04 L	1,0	20	0,000 B	0,0000 B
22	30	20	15	10 N	300	100	30	200 N	300	0,07	23,0	,04 L	1,0	20	0,000 B	0,0000 B
23	20	20	10	10 N	300	100	20	200 N	200	0,09	22,0	,04 L	1,0 L	30	0,000 B	0,0000 B
24	30	20	20	10 N	500	200	50	200 N	500	0,10	26,0	,04 L	1,0	40	0,000 B	0,0000 B
25	30	15	15	10 N	300	150	50	200 N	500	0,10	22,0	,04 L	1,0 N	20	0,000 B	0,0000 B
26	30	20	15	10 N	500	150	50	200 N	500	0,08	27,0	,50	1,0 N	20	0,000 B	0,0000 B
27	20	20	15	10 N	300	150	50	200 N	300	0,15	30,0	,40	1,0 L	10	0,000 B	0,0000 B
28	30	20	20	10 N	500	150	50	200 N	500	0,09	26,0	,40	1,0 N	10	0,000 B	0,0000 B
29	30	20	15	10 N	300	200	30	200 N	300	0,07	27,0	,04 L	1,0 N	10	0,000 B	0,0000 B
30	30	10 L	15	10 N	500	150	50	200 N	300	0,09	26,0	,40	1,0 N	30	0,000 B	0,0000 B
31	15	20	10	10 N	300	100	30	200 N	200	0,10	25,0	,40	1,0 N	30	0,000 B	0,0000 B
32	20	20	15	10 N	500	100	30	200 N	300	0,07	24,0	,40	1,0 N	20	0,000 B	0,0000 B
33	50	20	20	10 N	300	200	30	200 N	300	0,05	29,0	,50	1,0 N	40	0,000 B	0,0000 B
34	50	20	20	10 N	500	150	30	200 N	200	0,11	31,0	,50	1,0 N	10	0,000 B	0,0000 B
35	30	20	20	10 N	500	150	30	200 N	200	0,03	24,0	,04 L	1,0 N	20	0,000 B	0,0000 B
36	50	20	20	10 N	500	150	50	200 N	500	0,03	25,0	,04 L	1,0 N	10	0,000 B	0,0000 B
37	30	20	20	10 N	500	150	30	200 N	200	0,02	23,0	,04 L	1,0 N	40	0,000 B	0,0000 B
38	50	20	20	10 N	300	200	50	200 N	200	0,05	42,0	,04 L	1,0 N	20	0,000 B	0,0000 B
39	15	20	15	10 N	200	100	50	200 N	300	0,04	17,0	,04 L	1,0 N	10	0,000 B	0,0000 B
40	5	20	20	10 N	200	100	100	200 N	300	1,50	16,0	,40 L	20,0	30	0,000 B	0,0000 B
41	5	50	20	10 N	300	150	70	200 N	300	38,50	21,0	,70	20,0	20	0,000 B	0,0000 B
42	5	30	15	10 N	300	100	70	200 N	300	2,20	22,0	,40	15,0	20	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
43	41 48 19	118 51 57	5.0	.70	1.50	1.00	2000	30	500	2.0	5	30	15	50	5 L	20 L
44	41 48 14	118 51 48	3.0	.50	.70	.30	1500	30	500	2.0	10	20	15	100	5 N	20 L
45	41 47 48	118 50 49	5.0	1.00	1.00	.50	1000	30	700	1.5	20	50	30	100	5 N	20 L
46	41 53 20	118 58 36	5.0	1.00	1.00	.50	1500	50	700	2.0	20	50	30	100	5 N	20 L
47	41 53 13	118 58 27	5.0	1.00	1.00	.70	1000	20	500	1.0	20	50	20	50	5 N	20 L
48	41 54 52	118 58 44	3.0	1.00	1.00	.50	1500	20	700	2.0	20	50	30	50	5 N	20 L
49	41 54 29	118 57 2	5.0	1.50	1.50	.50	1000	20	700	1.5	20	50	20	50	5 N	20 L
50	41 54 35	118 58 17	5.0	1.00	1.00	.50	1000	20	700	1.0	20	50	20	30	5 N	20 L
51	41 54 23	118 58 19	3.0	1.50	2.00	.50	1500	20	700	1.5	20	50	20	50	5 N	20 L
52	41 53 4	118 57 20	3.0	1.00	1.00	.50	1500	20	700	2.0	20	50	20	100	5 N	20 L
53	41 54 10	118 56 59	3.0	1.50	1.00	.50	1500	30	500	2.0	10	50	30	50	5 N	20 L
54	41 54 21	118 56 2	2.0	.70	1.50	.30	700	30	1000	2.0	10	30	15	100	5 N	20 L
55	41 55 20	118 53 30	5.0	1.00	2.00	.70	1000	30	1000	2.0	20	50	20	50	5 N	20 L
56	41 59 34	118 52 13	5.0	1.00	1.00	.70	1500	30	1000	2.0	20	50	30	50	5 N	20 L
57	41 59 20	118 52 23	5.0	2.00	2.00	.70	1500	20	1000	1.5	20	70	30	50	5 N	20 L
58	41 59 29	118 51 53	5.0	1.50	1.50	1.00	1000	20	700	1.5	20	70	30	70	5 N	20 L
59	41 58 35	118 51 47	3.0	.70	.70	.30	1000	20	700	1.5	15	70	20	50	5 N	20 L
60	41 53 38	118 53 14	3.0	.70	2.00	.30	700	20	1000	2.0	7	30	20	70	5 N	20 L
60	41 53 38	118 53 14	3.0	.70	1.00	.30	1000	20	1500	2.0	20	50	20	100	5 N	20 L
60	41 53 38	118 53 14	3.0	1.00	1.00	.30	1000	20	1000	2.0	20	50	20	70	5 N	20 L
60	41 53 38	118 53 14	3.0	1.00	1.50	.50	1000	20	1000	2.0	20	30	20	100	5 N	20 L
60	41 53 38	118 53 14	3.0	.50	.70	.30	1000	20	700	2.0	15	30	15	50	5 N	20 L
61	41 55 0	118 55 42	5.0	2.00	2.00	1.00	1000	15	700	1.0	20	50	20	50	5 N	20 L
62	41 54 53	118 47 20	5.0	1.00	1.00	.30	500	50	700	1.0	10	50	20	50	5 N	20 L
63	41 54 50	118 47 15	3.0	1.00	1.00	.50	700	50	1000	1.0	10	50	20	50	5 L	20 L
64	41 55 14	118 47 56	1.0	1.00	1.00	.50	500	50	500	2.0	10	30	30	50	5 N	20 L
65	41 55 23	118 48 11	1.5	.20	2.00	.20	200	10 L	1000	1.0	5	10	7	20 L	5 N	20 L
66	41 56 7	118 48 29	2.0	2.00	2.00	.70	1000	50	500	1.0	5	50	30	50	5 N	20 L
67	41 48 51	118 59 53	5.0	1.00	1.00	.30	1000	30	500	2.0	10	30	15	70	5 L	20 L
68	41 46 53	118 59 7	3.0	1.00	.70	.30	1000	30	500	2.0	15	30	15	100	5 N	20 L
69	41 52 30	118 45 7	5.0	2.00	1.50	1.00	1000	30	700	1.0	15	50	20	50	5 N	20 L
69	41 52 30	118 45 7	5.0	1.00	1.00	1.00	700	20	500	1.0	15	30	20	50	5 N	20 L
69	41 52 30	118 45 7	7.0	1.00	1.00	1.00	1500	30	500	1.0	30	50	20	50	5 N	20 L
70	41 55 21	118 45 47	3.0	1.00	1.00	1.00	1000	15	500	1.5	20	50	30	50	5 N	20 L
71	41 56 0	118 45 48	5.0	1.00	1.00	1.00	1000	15	500	1.5	20	50	30	50	5 N	20 L
72	41 49 33	118 51 33	10.0	2.00	2.00	1.00 G	2000	50	1000	1.5	30	50	30	70	5 N	20 L
73	41 49 40	118 51 35	7.0	1.00	1.00	1.00	1500	20	500	1.5	30	50	30	50	5 N	20 L
74	41 49 49	118 58 44	1.5	1.00	2.00	.50	700	30	700	1.0	5	50	20	50	5 N	20 L
75	41 56 31	118 47 4	7.0	1.50	2.00	1.00 G	3000	20	700	1.0 L	20	30	30	30	5 N	20 L
76	41 57 12	118 47 2	5.0	1.50	2.00	1.00	2000	20	700	1.0	10	50	20	50	5 N	20 L
77	41 58 13	118 47 13	7.0	1.50	3.00	1.00 G	2000	20	1000	1.0 L	30	30	20	50	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
43	5 L	30	5	10 N	300	70	70	200 N	300	7.60	22.0	.40	1.0 N	60	0.000 B	0.0000 B
44	5	50	10	10 N	300	70	70	200 N	300	1.50	15.0	.40	10.0	20	0.000 B	0.0000 B
45	20	30	20	10 N	300	150	50	200 N	300	0.21	19.0	.40	1.0	20	0.000 B	0.0000 B
46	20	30	20	10 N	300	100	50	200 N	200	0.10	27.0	.50	1.0 L	10	0.000 B	0.0000 B
47	30	20	15	10 N	300	100	30	200 N	300	0.08	27.0	.50	1.0 L	20	0.000 B	0.0000 B
48	20	20	20	10 N	500	150	50	200 N	150	0.03	26.0	.40	1.0 N	10	0.000 B	0.0000 B
49	30	20	20	10 N	500	100	50	200 N	100	0.06	24.0	.40	1.0 N	10	0.000 B	0.0000 B
50	20	20	20	10 N	300	200	30	200 N	100	0.09	27.0	.40	1.0 N	10	0.000 B	0.0000 B
51	20	20	20	10 N	500	150	50	200 N	200	0.03	22.0	.40 L	1.0 N	20	0.000 B	0.0000 B
52	20	30	15	10 N	500	100	50	200 N	200	0.11	20.0	.40	1.0 L	20	0.000 B	0.0000 B
53	20	20	20	10 N	300	150	50	200 N	200	0.06	31.0	.50	1.0 L	30	0.000 B	0.0000 B
54	5	30	15	10 N	500	70	50	200 N	300	0.05	14.0	.40 L	1.0 L	20	0.000 B	0.0000 B
55	30	30	20	10 N	300	150	50	200 N	300	0.03	34.0	.50	1.0 N	10	0.000 B	0.0000 B
56	20	30	20	10 N	300	150	50	200 N	300	0.04	35.0	.60	1.0 L	20	0.000 B	0.0000 B
57	50	20	20	10 N	500	150	30	200 N	300	0.03	32.0	.50	1.0 N	10	0.000 B	0.0000 B
58	30	20	20	10 N	500	150	50	200 N	200	0.06	31.0	.40	1.0 L	10	0.000 B	0.0000 B
59	30	10	20	10 N	300	100	50	200 N	300	0.03	29.0	.50	1.0 L	10	0.000 B	0.0000 B
60	15	30	20	10 N	500	100	50	200 N	300	0.06	22.0	.50	1.0 L	20	0.000 B	0.0000 B
60	15	30	15	10 N	500	100	50	200 N	300	0.03	15.0	.40 L	1.0 N	20	0.000 B	0.0000 B
60	15	30	20	10 N	500	70	50	200 N	300	0.05	15.0	.40 L	1.0 L	30	0.000 B	0.0000 B
60	15	20	20	10 N	500	70	50	200 N	300	0.03	18.0	.40	1.0 L	30	0.000 B	0.0000 B
60	15	20	15	10 N	300	50	50	200 N	200	0.03	19.0	.40	1.0 N	30	0.000 B	0.0000 B
61	30	20	20	10 N	500	200	30	200 N	200	0.03	29.0	.40 L	1.0 L	20	0.000 B	0.0000 B
62	20	10	7	10 N	300	70	20	200 N	200	0.35	25.0	.40 L	1.0 L	30	0.000 B	0.0000 B
63	15	20	15	10 N	500	100	30	200 N	200	0.16	22.0	.40 L	1.0 L	30	0.000 B	0.0000 B
64	15	20	15	10 N	300	100	50	200 N	200	0.03	34.0	.40	1.0 L	20	0.000 B	0.0000 B
65	5	10	5	10 N	500	50	10	200 N	100	2.00	26.0	.40 L	1.0 N	10	0.000 B	0.0000 B
66	20	20	15	10 N	500	150	50	200 N	300	0.03	29.0	.80	1.0 L	30	0.000 B	0.0000 B
67	15	20	15	10 N	300	100	50	200 N	200	0.03	22.0	.40 L	1.0 N	10	0.000 B	0.0000 B
68	20	20	20	10 N	300	70	70	200 N	300	0.03	25.0	.40 L	1.0 N	20	0.000 B	0.0000 B
69	20	20	15	10 N	500	100	50	200 N	500	0.03	22.0	.50	1.0 N	30	0.000 B	0.0000 B
69	20	20	20	10 N	500	100	50	200 N	200	0.07	17.0	.40	1.0 N	10	0.000 B	0.0000 B
69	15	20	20	10 N	300	150	50	200 N	500	0.20	33.0	.60	1.0 L	30	0.000 B	0.0000 B
70	20	20	20	10 N	500	200	50	200 N	200	0.03	30.0	.40	1.0 N	30	0.000 B	0.0000 B
71	20	20	30	10 N	300	200	50	200 N	200	0.04	36.0	.50	1.0 N	20	0.000 B	0.0000 B
72	50	20	20	10 N	700	300	50	200 N	500	0.08	26.0	.60	1.0	30	0.000 B	0.0000 B
73	20	20	7	10 N	500	200	50	200 N	500	0.05	28.0	.50	1.0 L	20	0.000 B	0.0000 B
74	10	20	15	10 N	500	100	30	200 N	300	0.03	17.0	.40 L	1.0 N	20	0.000 B	0.0000 B
75	20	20	15	10 N	500	300	30	200 N	700	0.04	24.0	.40	1.0 L	10	0.000 B	0.0000 B
76	20	20	15	10 N	500	200	50	200 N	700	0.03	35.0	.40	1.0 L	10	0.000 B	0.0000 B
77	20	30	20	10 N	500	300	70	200 N	1000	0.03	30.0	.40 L	1.0 L	10	0.000 B	0.0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
78	41 52 13	118 59 36	3.0	.50	1.00	.30	1000	20	1000	1.5	10	50	10	70	10	20 L
79	41 51 53	118 59 39	5.0	.30	.50	.30	500	30	150	2.0	5	20	7	150	7	20 L
80	41 51 45	118 59 44	3.0	.50	.70	.50	700	20	500	2.0	5	20	10	70	15	20 L
81	41 51 51	118 58 54	5.0	1.00	1.00	.30	1500	30	500	2.0	10	50	10	70	5 N	20 L
82	41 52 51	118 57 20	5.0	.70	1.00	.20	1000	30	500	1.5	20	50	20	70	5 N	20 L
83	41 52 48	118 57 39	7.0	1.00	1.00	.70	1000	30	500	1.5	20	50	20	100	5 N	20 L
84	41 51 34	118 57 33	7.0	.70	1.00	.70	1500	20	500	1.0	30	50	20	100	5 N	20 L
85	41 50 12	118 57 33	5.0	.70	1.00	.70	1500	20	500	1.5	20	50	20	70	5 N	20 L
86	41 49 17	118 54 51	5.0	1.00	1.00	.70	500	20	700	1.5	15	70	30	70	20	20 L
87	41 49 14	118 54 42	5.0	.70	1.00	.50	1000	30	700	1.5	15	50	30	70	5 N	20 L
88	41 49 9	118 54 21	5.0	.70	1.00	.50	1000	30	700	1.5	20	70	30	70	5 N	20 L
89	41 49 14	118 52 53	5.0	.50	.50	.30	1000	20	200	1.5	20	20	30	50	5 N	20 L
90	41 51 33	118 59 45	3.0	.30	.50	.50	700	10	200	1.5	5	20	10	50	5 L	20 L
91	41 51 25	118 59 49	2.0	.20	.20	.30	300	15	150	2.0	5	10	10	50	5 N	20 L
92	41 51 19	118 59 49	5.0	.50	.50	.50	1000	15	200	1.5	15	20	10	50	5 N	20 L
93	41 50 48	118 59 22	1.5	.30	.30	.20	300	10	100	3.0	5	10	7	50	10	20 L
94	41 50 44	118 59 52	2.0	.20	.70	.30	500	15	300	3.0	7	15	10	70	5 N	20 L
95	41 50 33	118 59 44	2.0	.30	.50	.20	500	20	200	2.0	10	30	10	50	5 N	20 L
96	41 49 49	118 58 44	5.0	1.00	1.00	1.00	1000	10	700	1.5	20	50	20	100	5 N	20 L
97	41 50 7	118 59 41	3.0	.30	.50	.50	700	15	500	1.5	10	20	10	100	5 N	20 L
98	41 49 42	118 51 17	1.5	.70	1.50	.15	500	20	150	1.0	10	50	20	50	5 N	20 L
99	41 47 20	118 49 18	5.0	1.00	1.00	1.00	1000	20	700	1.0	30	70	20	50	5 N	20 L
100	41 46 10	118 59 56	5.0	1.50	1.00	1.00	1000	20	500	1.0	30	50	20	70	5 N	20 L
101	41 54 0	118 59 3	5.0	1.00	2.00	1.00 G	1000	10	300	1.0	20	150	20	20	7	30
102	41 54 57	118 57 57	5.0	2.00	3.00	1.00 G	1000	10 L	300	1.0 L	30	150	20	20 L	5 N	20
103	41 55 23	118 57 21	3.0	1.50	2.00	.20	700	10	500	1.0	10	30	20	20	5 L	20 N
104	41 53 12	118 56 58	3.0	.70	1.00	.15	1000	20	500	2.0	7	10	7	30	5	20
105	41 54 44	118 55 54	3.0	1.00	1.00	.15	700	20	500	2.0	10	30	20	20	5 L	20
106	41 55 13	118 54 6	3.0	1.00	2.00	.20	1000	20	500	1.5	10	70	20	30	5 L	20
107	41 56 13	118 53 21	3.0	1.00	2.00	.20	1000	15	500	1.0	20	50	20	30	5 L	20 L
108	41 56 7	118 53 35	3.0	1.50	1.50	.20	1000	20	500	2.0	15	30	30	30	5	20 L
109	41 57 15	118 52 30	3.0	1.00	1.00	.30	1000	20	500	2.0	10	30	15	30	5 L	10
110	41 53 54	118 55 56	3.0	1.00	1.00	.20	700	50	500	2.0	10	15	10	50	5 L	10
111	41 53 57	118 55 15	3.0	1.00	1.00	.30	1000	30	300	2.0	15	70	20	20	5 L	10
112	41 53 48	118 54 39	3.0	1.00	2.00	.30	1000	30	500	1.5	15	30	20	20	7	15
113	41 53 35	118 53 54	3.0	1.50	1.50	.20	1000	30	500	2.0	15	30	15	30	5 L	15
114	41 53 21	118 52 17	3.0	1.50	2.00	.30	1000	20	500	1.5	15	30	20	30	5 L	10
115	41 53 12	118 52 8	5.0	1.00	2.00	.50	1000	20	500	1.5	20	70	30	30	5 L	10
116	41 53 47	118 49 50	5.0	1.50	2.00	.30	1000	20	500	2.0	15	30	20	30	5	10
117	41 54 59	118 49 8	5.0	1.00	2.00	.50	1000	30	500	2.0	20	100	30	30	5 L	10
118	41 54 1	118 50 2	3.0	1.50	2.00	.50	1000	50	500	2.0	20	70	20	30	5 L	15

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
78	10	20	10	10 N	500	50	50	200 N	300	0,07	14,0	,40 L	1,0	10	0,000 B	0,0000 B
79	5	20	10	10 N	100	30	50	200 N	300	0,43	18,0	,40 L	1,0 L	30	0,000 B	0,0000 B
80	5	30	10	10 N	300	50	70	200 N	300	0,80	12,0	,40	3,0	30	0,000 B	0,0000 B
81	10	30	10	10 N	300	50	70	200 N	200	0,17	18,0	,40	1,0 L	20	0,000 B	0,0000 B
82	20	20	10	10 N	300	70	50	200 N	200	0,14	18,0	,40	1,0	20	0,000 B	0,0000 B
83	20	30	20	10 N	300	150	50	200 N	200	0,25	18,0	,40 L	2,0	30	0,000 B	0,0000 B
84	20	20	20	10 N	300	150	70	200 N	200	0,06	22,0	,40	1,0	10	0,000 B	0,0000 B
85	20	20	15	10 N	500	100	50	200 N	200	0,04	24,0	,50	1,0	20	0,000 B	0,0000 B
86	30	20	20	10 N	300	100	70	200 N	300	0,04	19,0	,40	1,0 L	20	0,000 B	0,0000 B
87	30	20	15	10 N	300	100	50	200 N	300	0,04	25,0	,40	1,0	20	0,000 B	0,0000 B
88	30	20	15	10 N	300	100	50	200 N	200	0,04	23,0	,50	1,0	30	0,000 B	0,0000 B
89	20	15	10	10 N	300	100	20	200 L	300	0,03	22,0	,40	1,0	30	0,000 B	0,0000 B
90	7	10	10	10 N	200	50	30	200 N	300	1,70	15,0	,40 L	15,0	30	0,000 B	0,0000 B
91	5 L	20	10	10 N	100	50	50	200 N	500	0,39	31,0	,40	40,0	120	0,000 B	0,0000 B
92	15	30	10	10 N	300	100	30	300	200	1,20	30,0	,40	20,0	40	0,000 B	0,0000 B
93	5	10	7	10 N	200	50	50	200 N	300	0,80	18,0	,40	3,0	10	0,000 B	0,0000 B
94	7	10	7	10 N	300	70	30	200 N	200	1,00	19,0	,50	5,0	10	0,000 B	0,0000 B
95	15	10	7	10 N	300	50	50	200 N	300	0,23	22,0	,40	4,0	20	0,000 B	0,0000 B
96	20	20	5 N	10 N	500	100	50	200 N	300	0,05	16,0	,40 L	1,0 L	30	0,000 B	0,0000 B
97	10	15	10	10 N	500	70	50	200 N	200	0,44	24,0	,50	1,0 N	30	0,000 B	0,0000 B
98	15	20	7	10 N	500	30	20	200 N	50	0,03	28,0	,50	1,0 L	20	0,000 B	0,0000 B
99	30	20	20	10 N	500	100	30	200 N	150	0,02	25,0	,40	1,0 N	20	0,000 B	0,0000 B
100	20	20	20	10 N	300	100	50	200 N	500	0,03	23,0	,40	1,0 N	20	0,000 B	0,0000 B
101	30	10	15	10 N	200	200	20	200 N	300	0,30	30,0	1,00	0,5 L	20	0,000 B	0,0000 B
102	30	10	20	10 N	300	200	15	200 N	300	0,04	27,0	1,00 N	0,5 L	20	0,000 B	0,0000 B
103	20	10	15	10 N	300	100	20	200 N	200	0,12	27,0	1,00 N	0,5 L	10	0,000 B	0,0000 B
104	10	15	7	10 N	200	50	20	200 N	100	0,16	19,0	1,00 N	0,5 L	20	0,000 B	0,0000 B
105	30	10	10	10 N	200	70	20	200 N	150	0,06	27,0	1,00 N	0,5 L	10	0,000 B	0,0000 B
106	30	10	10	10 N	300	100	20	200 N	150	0,08	27,0	1,00 N	0,5 L	10	0,000 B	0,0000 B
107	20	10	10	10 N	300	100	20	200 N	150	0,10	23,0	1,00 N	0,5 L	10	0,000 B	0,0000 B
108	30	10	10	10 N	500	100	20	200 N	150	0,08	24,0	1,00 N	0,5 N	10	0,000 B	0,0000 B
109	20	10	10	10 N	300	100	20	200 N	150	0,06	28,0	1,00 N	0,5 L	10	0,000 B	0,0000 B
110	10	10	7	10 N	300	50	30	200 N	100	0,10	19,0	1,00 N	0,5 N	10	0,000 B	0,0000 B
111	20	15	10	10 N	300	100	20	200 N	150	0,02	30,0	1,00 N	0,5 L	10	0,000 B	0,0000 B
112	30	15	10	10 N	500	70	20	200 N	150	0,02	24,0	1,00 N	0,5 L	10 N	0,000 B	0,0000 B
113	20	20	10	10 N	300	70	20	200 N	150	0,02	22,0	1,00 N	0,5 N	10 N	0,000 B	0,0000 B
114	30	20	10	10 N	500	100	20	200 N	150	0,02 L	23,0	1,00 N	0,5 N	10	0,000 B	0,0000 B
115	30	15	15	10 N	500	200	20	200 N	200	0,04	30,0	1,00 N	0,5 N	10 N	0,000 B	0,0000 B
116	30	15	10	10 N	500	150	20	200 N	150	0,02	24,0	1,00 N	0,5 N	20	0,000 B	0,0000 B
117	30	20	15	10 N	500	200	20	200 N	200	0,02	31,0	1,00 N	0,5 N	10 N	0,000 B	0,0000 B
118	30	15	15	10 N	300	200	20	200 N	200	0,04	26,0	1,00 N	0,5 N	10	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
119	41 56 15	118 50 38	3.0	1.00	2.00	.30	1000	30	500	2.0	20	30	30	30	5 L	15
120	41 52 8	118 59 31	5.0	.70	1.50	.20	700	30	200	2.0	10	15	10	70	5	20 N
121	41 57 42	118 49 17	3.0	1.00	2.00	.30	1000	30	500	1.5	15	30	20	30	5 L	15
122	41 49 5	118 59 56	3.0	.70	1.00	.20	700	30	300	3.0	7	10	15	50	10	20 N
123	41 48 38	118 59 30	3.0	.70	1.00	.15	700	50	300	3.0	7	15	15	70	5	20
124	41 47 58	118 59 12	3.0	1.00	1.50	.20	700	50	300	3.0	10	20	15	70	7	20
125	41 47 21	118 59 8	3.0	.70	1.00	.15	500	30	300	3.0	7	10	15	50	5 L	20 N
126	41 47 8	118 58 55	5.0	.70	1.00	.30	700	30	200	2.0	7	20	15	70	5 L	20
127	41 51 2	118 59 48	3.0	1.00	1.50	.30	700	20	300	3.0	10	15	15	30	5 N	20 N
128	41 58 26	118 47 12	3.0	1.00	2.00	.30	700	30	500	2.0	15	30	15	50	5 L	15
129	41 56 34	118 48 18	3.0	1.50	2.00	.50	1000	50	500	2.0	15	30	20	30	5 L	10
130	41 56 8	118 48 11	3.0	1.50	2.00	.20	700	20	500	1.0	10	30	20	20	5 L	20 L
		ROCK SPRING TABLE 15 MINUTE QUADRANGLE														
1	41 44 22	119 8 36	3.0	.50	.50	.30	1000	50	200	2.0	10	20	10	50	5 N	20 L
2	41 44 23	119 8 45	2.0	.30	.30	.20	500	50	150	2.0	5	10	7	50	5 N	20 L
3	41 42 20	119 9 16	5.0	.70	.70	.50	1000	20	300	2.0	10	50	20	50	5 N	20 L
4	41 44 3	119 0 39	3.0	.70	1.00	.30	1000	50	300	3.0	15	50	10	50	5 L	20 L
5	41 39 53	119 12 24	5.0	1.00	.70	.50	700	30	700	2.0	10	30	20	50	5 N	20 L
6	41 40 9	119 12 33	2.0	.50	.50	.30	200	20	500	2.0	5	20	15	50	5 N	20 L
7	41 40 9	119 12 44	5.0	.70	.50	.70	1000	20	700	1.5	10	50	20	100	5 N	20 L
8	41 40 4	119 14 58	3.0	.70	1.00	.30	1000	20	700	2.0	10	20	10	50	5 N	20 L
9	41 40 51	119 14 27	2.0	.50	.50	.20	500	20	500	2.0	7	30	20	50	5 N	20 L
10	41 40 36	119 14 4	5.0	.70	1.00	.30	200	30	700	1.5	10	20	30	50	5 N	20 L
11	41 40 36	119 2 44	7.0	1.50	2.00	1.00	1500	20	700	1.0	20	100	50	50	5 N	20 L
12	41 40 10	119 3 6	5.0	1.00	1.50	.50	700	30	1000	1.0	10	70	50	70	5 N	20 L
13	41 40 53	119 3 7	3.0	.70	2.00	.50	700	20	500	1.0	10	50	20	70	5 N	20 L
14	41 41 8	119 3 6	10.0	1.50	2.00	1.00	1000	20	700	1.0	70	100	50	50	5 N	20 L
15	41 41 30	119 3 24	7.0	1.50	1.50	.70	700	30	700	1.0	10	50	50	70	5 N	20 L
16	41 41 51	119 3 48	7.0	1.50	1.00	1.00	1500	30	500	1.5	30	100	30	100	5 N	20 L
17	41 41 8	119 1 23	7.0	1.00	1.00	1.00	1500	30	500	1.5	20	50	20	100	5 N	20 L
18	41 42 5	119 1 29	15.0	.70	.70	1.00 G	5000	50	500	1.0	20	50	15	200	5 N	20 L
19	41 42 21	119 1 33	10.0	1.00	.70	1.00 G	2000	50	300	1.0	20	70	15	200	5 L	20 L
20	41 42 24	119 1 59	3.0	.70	1.00	.50	700	50	500	2.0	15	70	10	100	5 L	20 L
21	41 41 49	119 2 7	5.0	.70	.70	.50	1000	50	300	2.0	15	50	10	100	5 L	20 L
22	41 41 48	119 1 55	3.0	.70	1.00	.30	700	50	300	2.0	15	50	10	70	5 L	20 L
23	41 38 57	119 13 37	3.0	.70	.70	.50	1000	20	700	2.0	10	50	20	50	5 N	20 L
24	41 38 45	119 13 36	2.0	1.00	1.00	.50	1000	20	700	2.0	10	20	20	50	5 N	20 L
25	41 39 2	119 12 5	3.0	1.00	1.00	.30	300	20	700	2.0	10	20	20	50	5 N	20 L
26	41 39 21	119 11 38	3.0	1.00	.70	.50	1000	20	700	2.0	15	70	20	50	5 N	20 L
27	41 39 15	119 11 21	5.0	1.00	1.00	.30	1000	20	700	2.0	15	30	20	100	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CU-P	AA-SB-P	CM-AS	AC-TH	AC-U
119	20	20	15	10 N	500	150	30	200 N	200	0,02	22,0	1,00 N	0,5 N	10 N	0,000 B	0,0000 B
120	10	30	15	10 N	150	70	30	200 N	200	0,02	24,0	1,00	0,5 L	10 N	18,250	5,7900
121	15	15	10	10 N	500	150	20	200 N	150	0,04	23,0	1,00 L	0,5 L	10 N	0,000 B	0,0000 B
122	5	20	15	10 L	200	50	30	200 N	200	0,06	26,0	2,00	0,5 N	40	14,050	7,1000
123	7	30	15	10	200	50	50	200 N	300	0,02	26,0	1,00	0,5 L	10	16,870	6,7900
124	15	20	20	10 N	300	70	70	200 N	300	0,04	26,0	1,00	0,5 L	20	15,540	6,3600
125	5	20	15	10 N	200	50	30	200 N	150	0,10	30,0	1,00	0,5 N	10	18,580	6,2000
126	10	20	15	10 N	150	70	30	200 L	150	0,06	32,0	1,00 N	0,5 N	20	19,640	7,0500
127	15	20	15	10 N	200	70	30	200 N	200	0,55	31,0	2,00	0,5 N	10	17,320	4,9600
128	15	20	10	10 N	500	100	30	200 N	150	0,02	24,0	1,00 L	0,5 L	10	0,000 B	0,0000 B
129	15	20	10	10 N	300	100	20	200 N	150	0,04	28,0	1,00 L	0,5 L	10	0,000 B	0,0000 B
130	15	15	10	10 N	500	100	15	200 N	100	0,02 L	18,0	1,00 N	0,5 L	10	0,000 B	0,0000 B
								ROCK SPRING TABLE 15 MINUTE QUADRANGLE								
1	10	20	5	10 N	100	30	30	200 N	200	0,05	18,0	,50	1,0 N	10	0,000 B	0,0000 B
2	5	20	5	10 N	100	20	30	200 N	150	0,05	14,0	,40	1,0 N	10	0,000 B	0,0000 B
3	10	20	10	10 N	100	100	30	200 N	300	0,06	24,0	,40	1,0 N	10	0,000 B	0,0000 B
4	20	50	15	10 N	300	50	30	200 N	200	0,15	25,0	,40	1,0 L	30	0,000 B	0,0000 B
5	15	30	10	10 N	200	50	20	200 N	150	0,05	40,0	,50	1,0 N	10 L	0,000 B	0,0000 B
6	5	15	10	10 N	200	50	20	200 N	300	0,05	17,0	,40	1,0 N	10	0,000 B	0,0000 B
7	5	20	10	10 N	300	100	20	200 N	500	0,05	26,0	,40	1,0 N	20	0,000 B	0,0000 B
8	10	20	10	10 N	500	50	20	200 N	150	0,06	20,0	,40	1,0 L	10	0,000 B	0,0000 B
9	10	20	10	10 N	200	50	20	200 N	100	0,05 L	29,0	,50	1,0	10	0,000 B	0,0000 B
10	20	15	15	10 N	200	100	20	200 N	100	0,05 L	30,0	,70	1,0 L	10	0,000 B	0,0000 B
11	50	20	20	10 N	200	200	30	200 N	300	0,08	44,0	,50	1,0 N	20	0,000 B	0,0000 B
12	30	20	20	10 N	500	100	50	200 N	300	0,09	30,0	,04 L	1,0 N	30	0,000 B	0,0000 B
13	15	15	10	10 N	300	100	20	200 N	300	0,13	43,0	,04 L	1,0 N	10	0,000 B	0,0000 B
14	70	30	20	10 N	300	200	30	200 N	300	0,07	44,0	,60	1,0 L	30	0,000 B	0,0000 B
15	30	30	20	10 N	300	100	50	200 N	500	0,05	28,0	,04 L	1,0 N	30	0,000 B	0,0000 B
16	70	30	20	10 N	200	200	50	200 N	500	0,04	39,0	,40	1,0 N	20	0,000 B	0,0000 B
17	20	30	20	10 N	500	150	50	200 N	500	0,06	27,0	,04 L	1,0 N	20	0,000 B	0,0000 B
18	20	20	20	10 N	200	150	50	500	500	0,36	34,0	,40 L	1,0 L	10	0,000 B	0,0000 B
19	20	30	20	10 N	200	150	30	200 N	300	0,20	29,0	,40 L	1,0 N	20	0,000 B	0,0000 B
20	20	30	15	10 N	200	100	50	200 N	300	0,28	21,0	,40	1,0 N	30	0,000 B	0,0000 B
21	20	50	15	10 N	200	100	50	200 N	300	0,20	25,0	,40 L	1,0 L	20	0,000 B	0,0000 B
22	20	30	15	10 N	200	70	50	200 N	200	0,30	24,0	,40 L	1,0 L	20	0,000 B	0,0000 B
23	10	20	10	10 N	300	100	50	200 N	300	0,06	34,0	,60	1,0	10	0,000 B	0,0000 B
24	10	20	15	10 N	300	100	30	200 N	200	0,20	26,0	,50	3,0	30	0,000 B	0,0000 B
25	10	20	15	10 N	300	100	50	200 N	200	0,25	28,0	,60	3,0	10	0,000 B	0,0000 B
26	10	20	15	10 N	300	100	50	200 N	200	0,12	22,0	,40	1,0 N	20	0,000 B	0,0000 B
27	10	20	20	10 N	300	150	50	200 N	1000 G	0,06	31,0	,40	1,0 N	20	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
28	41 38 38	119 11 12	3.0	1.00	1.00	.50	1000	20	700	2.0	15	50	20	50	5 N	20 L
29	41 36 29	119 12 29	2.0	.30	.50	.20	700	50	300	5.0	10	20	10	50	5 L	20 L
30	41 38 29	119 11 22	3.0	1.00	.70	.30	1000	20	700	2.0	20	50	20	50	5 N	20 L
31	41 38 31	119 11 44	3.0	1.00	1.00	.30	1000	20	700	2.0	15	50	20	50	5 N	20 L
32	41 38 16	119 11 20	5.0	1.00	1.00	.50	1000	20	700	2.0	15	50	20	50	5 N	20 L
33	41 38 11	119 11 0	5.0	1.00	.70	.30	1000	20	700	2.0	15	50	20	100	5 N	20 L
34	41 38 0	119 11 4	3.0	1.00	.70	.30	1000	20	700	2.0	15	20	20	50	5 N	20 L
35	41 37 41	119 10 45	5.0	1.00	1.00	.30	1000	20	700	2.0	10	50	20	50	5 N	20 L
36	41 37 23	119 9 47	3.0	1.00	1.00	.30	1000	20	700	2.0	10	20	20	100	5 N	20 L
37	41 37 33	119 9 48	3.0	1.50	.70	.30	1500	30	700	3.0	10	20	15	50	5 N	20 L
38	41 37 36	119 9 24	2.0	.70	.70	.50	1000	30	700	3.0	7	20	10	50	5 N	20 L
39	41 36 38	119 11 7	2.0	.30	.70	.20	500	50	500	5.0	10	20	10	70	10	20 L
40	41 36 45	119 11 11	2.0	.30	.50	.15	500	50	300	5.0	7	10	7	50	5 L	20 L
41	41 43 38	119 0 55	3.0	1.00	1.00	.30	1000	30	700	2.0	10	50	15	70	5 N	20 L
42	41 43 22	119 1 9	3.0	1.00	.70	.30	1000	30	300	2.0	10	50	15	70	5 L	20 L
43	41 42 43	119 1 29	3.0	1.00	.70	.30	1500	30	500	2.0	15	50	30	70	5 N	20 L
44	41 42 51	119 1 32	3.0	1.00	.70	.30	1500	30	300	2.0	15	50	30	70	5 L	20 L
45	41 37 33	119 9 17	2.0	.50	.70	.20	500	50	500	5.0	5	20	10	30	5 L	20 L
46	41 41 45	119 1 24	3.0	1.00	.70	.50	1500	30	500	2.0	15	50	30	100	5 L	20 L
47	41 41 12	119 1 42	10.0	1.00	.70	1.00	2000	20	500	1.0 L	50	50	30	200	5 N	20 L
48	41 38 32	119 8 31	2.0	.50	.50	.20	500	70	300	5.0	5	20	7	50	5 L	20 L
49	41 44 9	119 8 59	3.0	.70	1.00	.30	1500	50	500	3.0	20	30	10	70	5 L	20 L
50	41 44 39	119 14 17	1.5	.50	.70	.30	500	20	500	3.0	5	30	15	50	5 N	20 L
51	41 44 39	119 12 47	5.0	1.00	1.00	1.00	1500	20	500	2.0	20	70	30	50	5 N	20 L
52	41 44 20	119 11 59	5.0	1.00	.70	.70	1000	20	300	2.0	15	50	30	70	5 N	20 L
53	41 44 26	119 11 58	3.0	.70	.70	.50	1500	20	500	2.0	10	30	20	50	5 N	20 L
54	41 43 35	119 9 50	2.0	.70	1.00	.30	500	50	500	3.0	7	30	10	50	5 N	20 L
55	41 43 35	119 9 39	2.0	.50	1.00	.30	500	50	500	3.0	10	20	10	50	5 L	20 L
56	41 36 20	119 14 35	2.0	.70	.70	.20	500	30	500	3.0	7	50	20	70	5 N	20 L
57	41 43 48	119 9 50	3.0	.70	.70	.30	700	50	300	5.0	10	10	10	50	5 L	20 L
58	41 43 53	119 10 15	3.0	.50	.70	.50	1000	50	300	2.0	20	20	10	50	5 L	20 L
59	41 43 40	119 8 9	3.0	.50	1.00	.50	700	70	300	3.0	15	30	7	50	5 L	20 L
60	41 43 40	119 7 59	2.0	.50	.70	.50	500	70	300	5.0	10	20	7	50	5 L	20 L
61	41 44 4	119 8 12	2.0	.70	.70	.50	700	70	300	5.0	10	20	7	50	5 L	20 L
62	41 43 23	119 7 18	3.0	.50	.70	.30	300	20	500	2.0	5	20	10	70	5 N	20 L
63	41 42 45	119 6 48	3.0	.70	.70	.30	1000	30	500	2.0	10	30	20	70	5 N	20 L
64	41 42 11	119 6 47	5.0	1.00	.70	.30	1500	30	700	2.0	20	30	20	50	5 N	20 L
65	41 41 54	119 3 47	3.0	.70	.70	.30	700	20	500	1.5	15	70	30	50	5 N	20 L
66	41 38 49	119 7 51	2.0	.20	.30	.20	500	30	200	5.0	5 L	20	10	50	5 N	20 L
67	41 38 54	119 7 9	5.0	.50	.70	.20	1000	70	500	5.0	5	20	20	50	5 L	20 L
68	41 39 3	119 7 4	3.0	.70	.70	.20	700	50	500	3.0	5	50	20	50	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
28	10	20	15	10 N	300	100	50	200 N	300	0.09	33.0	.50	2.0	20	0.000 B	0.0000 B
29	10	50	5	10 N	150	50	70	200 N	300	0.24	35.0	.40 L	1.0 N	20	0.000 B	0.0000 B
30	15	20	15	10 N	300	100	50	200 N	300	0.14	29.0	.50	1.0	30	0.000 B	0.0000 B
31	10	30	15	10 N	500	100	50	200 N	200	0.06	29.0	.50	1.0 L	20	0.000 B	0.0000 B
32	10	30	15	10 N	300	100	70	200 N	1000	0.09	40.0	.50	1.0 L	10	0.000 B	0.0000 B
33	10	30	15	10 N	300	100	70	200 N	1000	0.05	34.0	.50	1.0 N	20	0.000 B	0.0000 B
34	10	30	15	10 N	300	100	30	200 N	500	0.05	24.0	.50	1.0 L	10	0.000 B	0.0000 B
35	10	30	15	10 N	300	100	50	200 N	1000	0.26	40.0	.50	1.0 N	10	0.000 B	0.0000 B
36	10	30	15	10 N	300	100	50	200 N	500	0.06	35.0	.40	1.0 N	10	0.000 B	0.0000 B
37	15	30	10	10 N	300	70	70	200 N	200	0.06	22.0	.40	1.0 L	10	0.000 B	0.0000 B
38	10	30	10	10 N	300	70	70	200 N	300	0.04	22.0	.40	1.0 L	10	0.000 B	0.0000 B
39	10	50	10	10 N	200	70	50	200 N	200	0.07	24.0	.40 L	1.0 N	20	0.000 B	0.0000 B
40	10	50	7	10 N	150	50	70	200 N	200	0.07	24.0	.40 L	1.0 N	30	0.000 B	0.0000 B
41	15	20	15	10 N	300	70	50	200 N	300	0.03	19.0	.40 L	1.0 N	20	0.000 B	0.0000 B
42	15	20	10	10 N	300	70	50	200 N	300	0.04	20.0	.40 L	1.0 N	20	0.000 B	0.0000 B
43	20	20	15	10 N	300	100	50	200 N	300	0.04	30.0	.50	1.0 N	20	0.000 B	0.0000 B
44	20	20	15	10 N	200	70	50	200 N	200	0.06	20.0	.40 L	1.0 N	20	0.000 B	0.0000 B
45	10	30	10	10 N	200	50	30	200 N	200	0.15	24.0	.40 L	1.0	30	0.000 B	0.0000 B
46	20	20	15	10 N	300	100	50	200 N	300	0.04	28.0	.40 L	1.0 N	10	0.000 B	0.0000 B
47	20	20	20	10 N	500	200	50	200 L	300	0.04	31.0	.40 L	1.0	10	0.000 B	0.0000 B
48	7	50	10	10 N	150	70	50	200 N	300	0.12	22.0	.40 L	2.0	20	0.000 B	0.0000 B
49	20	50	15	10 N	300	100	30	200 N	200	0.15	24.0	.40	1.0	30	0.000 B	0.0000 B
50	5	20	5	10 N	500	50	100	200 N	300	0.15	29.0	.60	1.0 L	20	0.000 B	0.0000 B
51	20	50	20	10 N	500	150	50	200 N	200	0.20	32.0	.60	1.0	20	0.000 B	0.0000 B
52	10	50	15	10 N	300	100	100	200 N	300	0.34	24.0	.50	1.0	20	0.000 B	0.0000 B
53	5	30	10	10 N	200	50	70	200 N	500	0.32	25.0	.60	1.0	30	0.000 B	0.0000 B
54	10	50	15	10 N	300	70	50	200 N	200	0.70	23.0	.40 L	1.0 L	30	0.000 B	0.0000 B
55	10	50	15	10 N	200	70	50	200 N	200	0.42	26.0	.40	1.0 L	30	0.000 B	0.0000 B
56	20	30	10	10 N	300	70	50	200 N	300	0.03	54.0	.70	1.0 N	20	0.000 B	0.0000 B
57	15	50	10	10 N	500	70	50	200 N	200	0.36	19.0	.40 L	1.0 L	20	0.000 B	0.0000 B
58	20	20	10	10 N	300	100	20	200 N	200	0.22	34.0	.50	1.0 L	30	0.000 B	0.0000 B
59	15	50	10	10 N	300	30	50	200 N	300	0.42	25.0	.40	1.0 L	30	0.000 B	0.0000 B
60	10	30	10	10 N	200	20	50	200 N	200	0.15	23.0	.40	1.0 L	40	0.000 B	0.0000 B
61	10	50	10	10 N	200	30	30	200 N	200	0.30	15.0	.40 L	1.0 L	30	0.000 B	0.0000 B
62	7	20	10	10 N	200	50	50	200 N	300	0.07	34.0	.50	1.0 N	20	0.000 B	0.0000 B
63	20	30	10	10 N	200	70	50	200 N	300	0.09	29.0	.60	1.0	20	0.000 B	0.0000 B
64	20	30	15	10 N	300	70	50	200 N	300	0.06	43.0	.60	1.0 L	20	0.000 B	0.0000 B
65	30	15	15	10 N	200	100	30	200 N	200	0.17	41.0	.60	1.0	20	0.000 B	0.0000 B
66	5	15	5	10 N	200	50	30	200 N	300	0.06	35.0	.50	1.0 L	20	0.000 B	0.0000 B
67	5 L	50	10	10 N	200	50	50	200 N	500	0.03	40.0	.40	1.0 L	20	0.000 B	0.0000 B
68	5	30	7	10 N	200	70	50	200 N	300	0.07	36.0	.50	1.0	20	0.000 B	0.0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
69	41 39 10	119 6 42	5.0	.70	.70	.50	1000	50	500	3.0	10	20	15	50	5 N	20 L
70	41 39 28	119 6 15	5.0	1.00	.70	.50	500	30	500	3.0	10	30	30	50	5 N	20 L
71	41 39 35	119 6 21	5.0	1.00	.70	.50	1000	30	500	5.0	20	50	20	100	5 N	20 L
72	41 39 29	119 7 0	3.0	1.00	1.00	.50	2000	30	500	3.0	15	30	20	100	5 N	20 L
73	41 40 18	119 7 6	2.0	.30	.50	.30	1000	50	200	2.0	5	20	10	100	5 N	20 L
74	41 40 27	119 7 4	3.0	1.00	1.00	.30	1000	50	700	2.0	20	50	30	70	5 N	20 L
75	41 40 54	119 7 18	3.0	.50	.50	.30	700	50	200	5.0	10	20	15	100	5 N	20 L
76	41 41 15	119 7 14	5.0	1.00	.70	1.00	1000	20	1000	3.0	20	20	20	70	5 N	20 L
77	41 40 31	119 9 52	3.0	1.00	1.00	.50	1000	50	500	3.0	10	50	20	70	5 N	20 L
78	41 35 44	119 0 2	5.0	.70	.70	.50	700	20	700	2.0	20	50	30	70	5 N	20 L
79	41 33 47	119 3 42	5.0	1.00	1.00	.50	2000	30	700	2.0	20	50	30	70	5 N	20 L
80	41 33 47	119 4 26	2.0	.50	.70	.30	500	20	500	2.0	10	30	10	50	5 L	20 L
81	41 35 38	119 4 59	3.0	.70	.70	.50	1000	30	500	2.0	20	50	30	70	5 L	20 L
82	41 35 21	119 7 4	5.0	.70	.70	.50	1500	30	700	2.0	15	30	20	100	10	20 L
83	41 36 45	119 1 19	5.0	1.00	.70	1.00	1000	30	700	2.0	20	50	30	50	5 N	20 L
84	41 36 10	119 8 53	3.0	.70	.70	.30	1000	50	500	2.0	15	50	30	70	5 L	20 L
85	41 36 12	119 9 11	5.0	1.00	1.00	.50	1000	30	700	2.0	10	50	30	70	5 L	20 L
86	41 36 55	119 8 44	5.0	1.00	1.00	.30	1000	30	700	2.0	10	50	30	70	5 L	20 L
87	41 37 0	119 8 35	2.0	.50	.70	.20	1000	30	500	2.0	5	30	30	50	5 N	20 L
88	41 36 48	119 8 32	2.0	.30	.50	.20	1000	20	300	2.0	5	20	10	50	5 N	20 L
89	41 36 55	119 7 50	5.0	.50	1.00	.50	1500	30	500	2.0	15	70	20	100	5 L	20 L
90	41 36 47	119 7 54	0.5	.30	.70	.10	500	20	200	1.0	5 L	10 L	10	20	5 N	20 L
91	41 37 9	119 14 13	3.0	.50	1.00	.50	700	30	700	3.0	10	20	20	100	5 N	20 L
92	41 38 22	119 14 15	5.0	1.00	1.00	.50	1500	20	700	2.0	20	20	20	50	15	20 L
93	41 44 45	119 12 7	2.0	.50	1.00	.10	1000	50	300	5.0	7	10	15	30	5 N	50
94	41 44 57	119 13 6	3.0	1.00	1.00	.15	700	50	300	5.0	7	20	15	50	7	50
95	41 41 43	119 9 59	3.0	.70	1.00	.15	700	50	300	5.0	7	10	15	50	5	50
96	41 41 44	119 11 2	3.0	.70	1.00	.15	700	50	300	7.0	5	10	15	50	5 L	30
97	41 41 53	119 10 59	3.0	.70	1.00	.20	700	50	300	5.0	7	15	15	50	5	50
		SAGE HEN HILLS 7.5 MINUTE QUADRANGLE														
1	41 53 57	119 21 7	2.0	.20	.50	.20	150	20	500	2.0	7	30	10	50	5 N	20 L
2	41 53 58	119 21 42	3.0	.50	.70	.30	700	50	500	2.0	10	50	20	50	5 N	20 L
3	41 53 51	119 21 42	2.0	.30	.50	.20	200	30	500	2.0	5	50	15	50	5 N	20 L
4	41 53 44	119 21 48	5.0	.70	.70	.30	700	30	700	2.0	10	50	20	50	5 N	20 L
5	41 53 12	119 21 45	7.0	.70	.70	.30	500	30	500	2.0	15	50	20	50	5 N	20 L
6	41 53 11	119 21 51	3.0	.30	.70	.30	300	30	500	2.0	10	50	15	50	5 N	20 L
7	41 53 48	119 21 57	5.0	.30	.70	.30	700	30	500	2.0	10	50	15	50	5 N	20 L
8	41 54 21	119 22 10	5.0	1.00	1.00	.50	1500	30	500	2.0	20	50	30	50	5 N	20 L
9	41 54 33	119 22 18	5.0	1.00	1.00	.50	500	30	500	2.0	10	50	20	50	5 N	20 L
10	41 55 45	119 22 26	5.0	1.00	1.00	.50	1000	20	700	1.0	10	20	20	50	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
69	10	30	7	10 N	300	70	50	200 N	500	0,04	30,0	,50	1,0	20	0,000 B	0,0000 B
70	10	30	15	10 N	300	70	70	200 N	300	0,17	38,0	,60	1,0	40	0,000 B	0,0000 B
71	30	30	20	10 N	300	100	100	200 N	500	0,12	44,0	,70	1,0	30	0,000 B	0,0000 B
72	20	50	10	10 N	300	100	50	200 N	300	0,07	42,0	,70	1,0	30	0,000 B	0,0000 B
73	7	50	10	10	200	70	100	200 N	300	0,04	28,0	,50	1,0	10	0,000 B	0,0000 B
74	30	30	20	10 N	500	100	70	200 N	300	0,08	44,0	,80	2,0	40	0,000 B	0,0000 B
75	5 L	50	5	10 N	200	50	50	200 N	500	0,07	30,0	,40 L	1,0 N	20	0,000 B	0,0000 B
76	5	50	20	10 N	300	150	30	200 N	300	0,06	32,0	,40	1,0	20	0,000 B	0,0000 B
77	10	20	15	10 N	300	100	100	200 N	300	0,05	28,0	,60	1,0	20	0,000 B	0,0000 B
78	30	20	20	10 N	500	100	50	200 N	300	0,05	28,0	,50	1,0	10	0,000 B	0,0000 B
79	20	20	20	10 N	500	100	50	200 N	300	0,03	29,0	,50	1,0	20	0,000 B	0,0000 B
80	10	10	15	10 N	500	70	50	200 N	200	0,03	18,0	,40 L	1,0	10	0,000 B	0,0000 B
81	30	20	20	10 N	500	150	50	200 N	300	0,07	43,0	,70	1,0 L	20	0,000 B	0,0000 B
82	20	30	15	10 N	300	100	70	200 N	500	0,05	39,0	,50	1,0 L	40	0,000 B	0,0000 B
83	50	20	20	10 N	200	100	70	200 N	500	0,07	30,0	,50	1,0 L	20	0,000 B	0,0000 B
84	20	50	10	10 N	300	100	70	200 N	200	0,04	30,0	,40 L	1,0 L	20	0,000 B	0,0000 B
85	20	20	15	10 N	300	100	70	200 N	300	0,12	33,0	,40	1,0	10	0,000 B	0,0000 B
86	20	20	20	10 N	300	70	50	200 N	200	0,15	31,0	,40	1,0	10	0,000 B	0,0000 B
87	20	20	10	10 N	200	70	50	200 N	200	0,07	39,0	,40	1,0	20	0,000 B	0,0000 B
88	10	20	5	10 N	200	50	50	200 N	300	0,04	34,0	,50	1,0 L	20	0,000 B	0,0000 B
89	20	50	20	10 N	300	100	70	200 N	300	0,03	28,0	,60	1,0 L	20	0,000 B	0,0000 B
90	5 L	10 L	5 L	10 N	100	50	10 L	200 N	70	0,49	34,0	,60	1,0 L	10 L	0,000 B	0,0000 B
91	15	50	15	10 N	500	70	70	200 N	200	0,03	39,0	,50	1,0	10	18,120	6,5500
92	20	50	15	10 N	500	100	50	200 N	300	0,10	17,0	,50	4,0	20	11,800	3,9000
93	10	30	5	10 L	200	50	50	200 N	200	0,06	21,0	1,00	0,5 L	10	0,000 B	0,0000 B
94	15	20	10	10 L	300	70	50	200 N	300	0,08	24,0	1,00	0,5 N	10 N	0,000 B	0,0000 B
95	15	20	7	10 L	200	50	50	200 N	150	0,04	25,0	1,00 L	0,5 L	10 N	0,000 B	0,0000 B
96	10	15	7	10 L	200	50	30	200 N	150	0,04	20,0	1,00	0,5 L	10	0,000 B	0,0000 B
97	15	20	7	10 L	200	50	30	200 N	200	0,02 L	22,0	1,00	0,5 N	10	0,000 B	0,0000 B
SAGE HEN HILLS 7,5 MINUTE QUADRANGLE																
1	10	30	10	10 N	300	70	20	200 N	150	0,02	28,0	,40	1,0 N	10	0,000 B	0,0000 B
2	20	10	15	10 N	300	100	30	200 N	200	0,02	41,0	,50	1,0 L	10	0,000 B	0,0000 B
3	10	20	10	10 N	300	70	20	200 N	150	0,08	21,0	,40 L	1,0 L	10	0,000 B	0,0000 B
4	20	30	20	10 N	300	100	50	200 N	200	0,03	34,0	,50	1,0	10	0,000 B	0,0000 B
5	20	30	20	10 N	300	100	50	200 N	200	0,05	38,0	,50	1,0 L	10	0,000 B	0,0000 B
6	20	30	20	10 N	300	100	50	200 N	200	0,02	30,0	,40	1,0 L	10	0,000 B	0,0000 B
7	20	30	20	10 N	300	100	50	200 N	300	0,03	42,0	,50	1,0	10	0,000 B	0,0000 B
8	20	30	20	10 N	300	100	50	200 N	200	0,03	48,0	,60	1,0	10	0,000 B	0,0000 B
9	20	30	20	10 N	300	100	50	200 N	200	0,03	38,0	,60	1,0 L	10	0,000 B	0,0000 B
10	10	20	10	10 N	200	150	20	200 N	300	0,06	45,0	,80	1,0 L	10	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
11	41 55 45	119 22 13	5.0	1.00	1.00	.50	1000	20	700	1.0	10	50	20	50	5	N 20 L
12	41 55 50	119 22 17	3.0	.70	1.00	.50	1000	20	700	1.0	10	20	20	50	5	N 20 L
13	41 54 48	119 15 24	5.0	1.50	1.00	1.00	1500	20	700	2.0	20	50	30	50	5	N 20 L
14	41 54 43	119 15 25	5.0	1.50	1.50	1.00	1500	20	700	2.0	20	50	30	50	5	N 20 L
15	41 54 6	119 15 14	5.0	1.50	1.00	1.00	1000	20	700	2.0	20	50	30	50	5	N 20 L
16	41 52 36	119 16 59	7.0	1.00	.70	1.00	1500	30	1000	2.0	20	50	30	70	5	N 20 L
17	41 54 6	119 19 21	5.0	1.00	1.00	.70	1500	20	700	2.0	20	50	30	50	5	N 20 L
18	41 54 30	119 20 2	5.0	.50	.50	.30	700	20	500	2.0	20	50	30	70	5	N 20 L
19	41 55 32	119 18 46	5.0	1.00	.70	.70	1000	30	700	2.0	20	100	30	50	5	N 20 L
20	41 56 2	119 17 32	5.0	1.00	1.00	.50	1000	20	1000	2.0	20	50	30	50	5	N 20 L
21	41 56 52	119 17 56	7.0	1.00	1.00	.70	1500	20	1000	2.0	50	50	30	100	5	N 20 L
22	41 55 32	119 15 24	5.0	1.50	1.00	.70	1500	20	700	2.0	20	50	30	50	5	N 20 L
23	41 55 38	119 15 37	5.0	1.00	1.00	.70	1000	20	700	2.0	20	50	30	50	5	N 20 L
24	41 54 9	119 17 2	3.0	.50	.50	.30	1000	30	500	2.0	5	50	15	100	10	20 L
25	41 59 57	119 20 21	5.0	1.00	.70	.70	1500	20	1000	2.0	20	50	30	70	5	N 20 L
26	41 59 9	119 21 11	5.0	1.00	1.00	.50	1000	20	1000	2.0	20	50	30	50	5	N 20 L
27	41 53 4	119 15 2	5.0	.70	1.00	.50	1000	50	300	2.0	20	30	10	30	5	L 20 L
28	41 53 12	119 16 29	3.0	.70	1.00	.50	1000	50	500	2.0	20	50	15	30	5	N 20 L
29	41 59 38	119 18 21	5.0	1.00	1.00	.50	1000	20	700	2.0	30	70	30	50	5	N 20 L
30	41 59 27	119 17 44	5.0	1.00	1.00	.50	1500	20	700	2.0	30	70	30	70	5	N 20 L
31	41 59 7	119 17 39	7.0	1.00	1.00	.50	1500	20	700	2.0	30	70	30	70	5	N 20 L
32	41 58 42	119 17 30	5.0	.70	1.00	.50	1000	20	700	2.0	20	50	20	70	5	N 20 L
33	41 58 27	119 17 12	5.0	1.00	1.00	.30	1500	20	700	2.0	30	70	30	50	5	N 20 L
34	41 59 40	119 16 1	5.0	1.00	1.00	.50	1500	20	700	2.0	30	70	30	50	5	N 20 L
35	41 59 38	119 15 41	5.0	1.00	1.00	.50	1500	20	700	2.0	30	70	30	50	5	N 20 L
36	41 57 47	119 16 4	5.0	1.00	1.00	.50	1500	20	700	2.0	30	50	30	70	5	N 20 L
37	41 57 36	119 16 22	5.0	.70	1.00	.50	1500	30	700	2.0	20	50	30	70	5	N 20 L
38	41 59 12	119 21 50	5.0	.70	.70	.50	1500	20	700	2.0	20	70	30	100	5	N 20 L
39	41 59 3	119 20 26	2.0	.50	.70	.30	500	30	500	2.0	7	20	15	70	5	N 20 L
40	41 58 50	119 20 21	5.0	.70	.70	.50	1500	20	700	2.0	30	50	30	70	5	N 20 L
41	41 58 55	119 20 11	5.0	1.00	.70	1.00	1500	20	1000	1.0	30	50	30	50	5	N 20 L
42	41 59 58	119 17 49	5.0	1.00	1.00	1.00	1000	20	700	1.5	30	50	30	70	5	N 20 L
43	41 59 58	119 19 0	5.0	1.00	1.00	.70	1000	20	700	1.5	20	50	30	70	5	N 20 L
44	41 59 58	119 22 8	7.0	1.00	1.00	1.00	1000	20	700	1.5	30	50	30	70	5	N 20 L

SWAN LAKE 7.5 MINUTE QUADRANGLE

1	41 51 59	119 26 12	3.0	.70	1.50	.50	700	50	500	2.0	10	70	10	50	5	N 20 L
2	41 47 49	119 22 53	5.0	1.00	1.00	.50	1000	20	700	2.0	20	50	20	50	5	N 20 L
3	41 47 38	119 23 7	3.0	.70	1.00	.50	1000	30	1000	2.0	10	50	30	50	5	N 20 L
4	41 51 14	119 26 40	3.0	.70	1.00	.50	700	50	500	2.0	10	50	20	50	5	L 20 L
5	41 48 15	119 23 13	5.0	1.00	.70	.50	1000	20	700	2.0	20	50	30	50	5	N 20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
11	10	20	10	10 N	200	150	20	200 N	300	0,06	40,0	,70	1,0 N	10	0,000 B	0,0000 B
12	10	20	5	10 N	200	150	10	200 N	300	0,06	59,0	,90	1,0 N	10 L	0,000 B	0,0000 B
13	20	20	15	10 N	500	200	20	200 N	300	0,02	25,5	,50	1,0 L	10	0,000 B	0,0000 B
14	20	20	15	10 N	500	200	20	200 N	300	0,02	28,9	,50	1,0 N	20	0,000 B	0,0000 B
15	20	20	15	10 N	500	200	30	200 N	300	0,03	28,9	,50	1,0 L	20	0,000 B	0,0000 B
16	20	20	15	10 N	300	150	20	200 N	700	0,04	44,0	,50	1,0 L	40	0,000 B	0,0000 B
17	20	20	15	10 N	500	100	20	200 N	500	0,03	26,5	,50	1,0 L	40	0,000 B	0,0000 B
18	20	20	15	10 N	300	100	50	200 N	300	0,06	51,0	,90	1,0 L	10	0,000 B	0,0000 B
19	30	20	15	10 N	500	100	20	200 N	300	0,02 N	48,0	,70	1,0 L	40	0,000 B	0,0000 B
20	30	20	15	10 N	500	150	20	200 N	200	0,02 N	48,0	,70	1,0 L	40	0,000 B	0,0000 B
21	50	30	20	10 N	500	150	50	200 N	300	0,06	59,0	,70	1,0 L	20	0,000 B	0,0000 B
22	20	20	15	10 N	500	200	20	200 N	200	0,02	26,0	,40	1,0 L	40	0,000 B	0,0000 B
23	20	30	15	10 N	500	150	50	200 N	200	0,03	50,0	,70	1,0 L	40	0,000 B	0,0000 B
24	5	20	15	10 N	100	50	20	200 N	700	0,02	22,2	,40 L	1,0 L	60	0,000 B	0,0000 B
25	50	20	15	10 N	200	100	20	200 N	300	0,02	39,0	,40	1,0 L	40	0,000 B	0,0000 B
26	20	20	15	10 N	500	100	20	200 N	300	0,02	30,0	,50	1,0 N	40	0,000 B	0,0000 B
27	20	30	15	10 N	300	100	20	200 N	150	0,17	27,0	,40 L	1,0	40	0,000 B	0,0000 B
28	20	30	15	10 N	300	100	20	200 N	200	0,16	38,0	,40	1,0	30	0,000 B	0,0000 B
29	30	20	20	10 N	500	100	30	200 N	200	0,05	57,0	,60	1,0 N	10	0,000 B	0,0000 B
30	30	20	20	10 N	500	100	30	200 N	300	0,04	38,0	,40	1,0 N	10	0,000 B	0,0000 B
31	30	20	20	10 N	500	100	50	200 N	300	0,06	44,0	,50	1,0 N	10	0,000 B	0,0000 B
32	20	20	20	10 N	300	100	30	200 N	300	0,04	51,0	,50	1,0 L	20	0,000 B	0,0000 B
33	30	20	20	10 N	500	100	30	200 N	300	0,05	54,0	,50	1,0 N	40	0,000 B	0,0000 B
34	30	20	20	10 N	500	100	30	200 N	300	0,04	49,0	,50	1,0 N	40	0,000 B	0,0000 B
35	30	20	20	10 N	500	150	50	200 N	500	0,03	53,0	,50	1,0 N	40	0,000 B	0,0000 B
36	30	20	20	10 N	500	100	50	200 N	500	0,03	48,0	,40	1,0 N	20	0,000 B	0,0000 B
37	20	20	20	10 N	500	100	30	200 N	300	0,06	53,0	,40	1,0 N	20	0,000 B	0,0000 B
38	30	20	20	10 N	300	100	50	200 N	300	0,08	30,0	,40 L	1,0 L	30	0,000 B	0,0000 B
39	10	20	10	10 N	300	70	50	200 N	200	0,15	12,0	,40 L	1,0 L	20	0,000 B	0,0000 B
40	50	30	20	10 N	300	100	50	200 N	300	0,06	33,0	,40 L	1,0 L	20	0,000 B	0,0000 B
41	50	20	20	10 N	300	150	50	200 N	500	0,06	34,0	,40 L	1,0 L	20	0,000 B	0,0000 B
42	30	20	20	10 N	500	150	50	200 N	300	0,03	38,0	,50	1,0 L	20	0,000 B	0,0000 B
43	30	20	20	10 N	300	200	50	200 N	300	0,03	24,0	,40	1,0 N	30	0,000 B	0,0000 B
44	30	20	30	10 N	500	200	50	200 N	200	0,04	29,0	,50	1,0 N	20	0,000 B	0,0000 B
SWAN LAKE 7,5 MINUTE QUADRANGLE																
1	20	50	15	10 N	500	70	30	200 N	200	0,32	24,0	,50	1,0 N	30	0,000 B	0,0000 B
2	20	20	15	10 N	500	100	20	200 N	300	0,03	28,8	,40	1,0 N	10	0,000 B	0,0000 B
3	20	20	15	10 N	500	70	20	200 N	200	0,06	25,5	,40 L	1,0 N	20	0,000 B	0,0000 B
4	20	30	15	10 N	300	70	30	200 N	200	0,20	23,0	,50	1,0 L	30	0,000 B	0,0000 B
5	20	20	20	10 N	300	150	20	200 N	500	0,04	26,0	,40	1,0 L	20	0,000 B	0,0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
6	41 48 17	119 23 17	5.0	1.00	1.00	.70	1000	20	700	2.0	20	70	30	50	5	N 20 L
7	41 48 38	119 23 31	3.0	1.00	1.00	.70	700	20	700	2.0	10	30	15	30	5	N 20 L
8	41 49 17	119 23 40	5.0	.70	1.00	.50	1000	30	700	2.0	20	100	30	70	5	N 20 L
9	41 49 32	119 23 48	5.0	.70	1.00	.50	1000	30	700	2.0	20	50	20	70	5	N 20 L
10	41 49 45	119 23 26	5.0	1.00	1.00	.30	1000	30	700	2.0	20	50	30	70	5	N 20 L
11	41 49 45	119 23 32	5.0	.70	.70	.30	1000	20	700	2.0	20	50	30	70	5	N 20 L
12	41 49 8	119 24 50	5.0	.70	.70	.30	700	20	700	2.0	15	50	30	70	5	N 20 L
13	41 48 30	119 25 9	5.0	.70	1.00	.50	700	20	500	2.0	15	50	20	50	5	N 20 L
14	41 48 26	119 25 4	3.0	.50	.70	.30	300	20	500	2.0	7	20	15	50	5	N 20 L
15	41 51 11	119 25 54	3.0	.70	1.50	.50	1000	50	700	2.0	15	50	20	50	5	N 20 L
16	41 48 21	119 25 1	3.0	1.00	.70	.30	300	30	500	2.0	7	30	30	50	5	N 20 L
17	41 48 20	119 25 4	5.0	1.50	1.50	.70	700	20	500	2.0	15	50	30	30	5	N 20 L
18	41 48 24	119 25 17	3.0	1.00	1.00	.50	700	30	700	2.0	10	50	30	50	5	N 20 L
19	41 50 41	119 25 45	3.0	.70	1.50	.30	700	30	700	1.5	20	50	15	20	5	L 20 L
20	41 50 36	119 25 42	3.0	.50	1.00	.30	1500	50	500	2.0	20	50	15	30	5	N 20 L
21	41 48 57	119 25 36	10.0	1.00	2.00	1.00	1500	20	700	1.0	20	50	30	50	5	N 20 L
22	41 50 15	119 25 6	3.0	.70	1.50	.30	700	50	500	2.0	20	50	20	30	5	L 20 L
23	41 50 0	119 24 45	3.0	.70	1.50	.50	1000	50	700	2.0	20	50	15	50	5	N 20 L
24	41 49 55	119 23 56	3.0	.30	.70	.30	700	30	500	2.0	15	50	15	50	5	N 20 L
25	41 49 42	119 23 35	3.0	.50	1.50	.50	1000	50	700	2.0	20	50	20	50	5	N 20 L
26	41 49 42	119 23 29	3.0	.70	1.50	.50	1000	50	500	2.0	20	50	15	50	5	N 20 L
27	41 49 5	119 23 31	5.0	.70	1.50	.70	1000	50	500	2.0	30	70	20	50	5	N 20 L
28	41 49 5	119 25 42	7.0	1.00	2.00	.50	1000	20	700	1.0	15	50	30	50	5	N 20 L
29	41 49 9	119 25 44	7.0	1.00	1.00	1.00 G	1500	20	700	1.0	20	50	30	50	5	N 20 L
30	41 49 32	119 26 35	7.0	1.00	1.50	1.00 G	1000	20	700	1.0	20	100	20	50	5	N 20 L
31	41 49 53	119 26 53	5.0	1.00	1.50	1.00	1000	20	700	1.0	15	70	20	50	5	N 20 L
32	41 50 8	119 27 2	7.0	1.00	1.50	1.00	1500	20	700	1.0	30	50	30	50	5	N 20 L
33	41 51 23	119 27 6	5.0	1.00	1.00	1.00	1000	20	700	1.0	20	70	20	50	5	N 20 L
34	41 51 30	119 27 42	5.0	1.00	1.50	.50	1000	20	700	1.5	30	70	30	50	5	N 20 L
35	41 51 32	119 27 54	7.0	1.00	1.00	1.00	700	20	700	1.0	30	100	30	50	5	N 20 L
36	41 51 10	119 27 24	5.0	1.00	1.00	.50	700	20	700	2.0	20	70	30	50	5	N 20 L
37	41 45 52	119 28 36	7.0	2.00	2.00	1.00	1500	10	1000	1.0 L	50	200	30	50	5	N 20 L
38	41 45 57	119 29 12	15.0	1.50	1.00	1.00	1500	10	700	1.0 L	50	100	20	50	5	N 20 L
39	41 46 2	119 29 13	5.0	1.00	1.50	1.00	1500	10	700	1.0	30	50	20	50	5	N 20 L
40	41 52 9	119 29 30	5.0	1.00	1.00	.50	500	30	500	1.5	15	70	30	70	5	N 20 L
41	41 52 14	119 29 27	7.0	1.00	1.00	1.00	1000	30	700	1.0	20	70	30	50	5	N 20 L
42	41 52 15	119 29 35	7.0	1.50	1.50	1.00	1000	10	700	1.0 L	20	50	20	50	5	N 20 L
43	41 50 3	119 28 33	5.0	1.00	1.00	1.00	700	20	500	1.5	20	50	20	50	5	N 20 L
44	41 49 46	119 28 1	7.0	1.00	1.00	.70	1000	20	700	1.0 L	20	50	30	50	5	L 20 L
45	41 50 50	119 27 55	3.0	1.00	.50	1.00	1000	50	500	1.5	50	50	20	50	5	L 20 L
46	41 46 44	119 28 36	5.0	2.00	2.00	.20	700	20	700	1.0	10	20	20	50	5	N 20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
6	20	20	15	10 N	500	200	20	200 N	300	0.05	28.0	.40	1.0 N	20	0.000 B	0.0000 B
7	15	20	15	10 N	500	70	20	200 N	300	0.06	12.5	.40 L	1.0 N	20	0.000 B	0.0000 B
8	20	20	20	10 N	500	150	20	200 N	300	0.05	27.2	.40 L	1.0 L	20	0.000 B	0.0000 B
9	20	30	20	10 N	500	100	30	200 N	500	0.05	30.0	.40	1.0 L	10	0.000 B	0.0000 B
10	20	20	15	10 N	300	100	30	200 N	300	0.10	39.0	.40	1.0 L	20	0.000 B	0.0000 B
11	20	20	20	10 N	300	100	30	200 N	300	0.06	46.0	.50	1.0 L	60	0.000 B	0.0000 B
12	20	20	20	10 N	500	100	30	200 N	200	0.07	29.0	.40	1.0 L	80	0.000 B	0.0000 B
13	20	20	20	10 N	300	100	20	200 N	200	0.06	27.3	.40	1.0 L	60	0.000 B	0.0000 B
14	15	10	15	10 N	300	70	30	200 N	200	0.06	22.0	.40	1.0 L	40	0.000 B	0.0000 B
15	20	50	15	10 N	500	70	30	200 N	200	0.17	35.0	.60	1.0 N	30	0.000 B	0.0000 B
16	20	20	15	10 N	200	100	30	200 N	200	0.09	39.0	.50	1.0 L	20	0.000 B	0.0000 B
17	30	20	20	10 N	500	150	20	200 N	200	0.09	26.5	.90	1.0 L	20	0.000 B	0.0000 B
18	20	20	15	10 N	300	70	20	200 N	200	0.03	24.0	.40 L	1.0 L	20	0.000 B	0.0000 B
19	20	50	15	10 N	500	100	20	200 N	100	0.12	26.0	.50	1.0 L	20	0.000 B	0.0000 B
20	20	30	15	10 N	300	100	20	200 N	150	0.16	27.0	.50	1.0 L	30	0.000 B	0.0000 B
21	20	20	15	10 N	700	200	50	200 N	300	0.03	22.0	.40 L	1.0 N	20	0.000 B	0.0000 B
22	20	20	15	10 N	500	100	20	200 N	150	0.12	23.0	.50	1.0 L	30	0.000 B	0.0000 B
23	20	20	15	10 N	500	100	20	200 N	200	0.10	35.0	.60	1.0 L	30	0.000 B	0.0000 B
24	15	20	15	10 N	200	70	20	200 N	150	1.76	40.0	.50	1.0 L	40	0.000 B	0.0000 B
25	20	30	15	10 N	300	100	30	200 N	200	0.70	39.0	.60	1.0 L	20	0.000 B	0.0000 B
26	20	50	15	10 N	300	100	30	200 N	200	2.60	36.0	.60	1.0 L	30	0.000 B	0.0000 B
27	20	30	15	10 N	500	150	20	200 N	200	0.44	32.0	.50	1.0 L	30	0.000 B	0.0000 B
28	20	20	10	10 N	500	100	30	200 N	200	0.03	23.0	.40 L	1.0 N	10	0.000 B	0.0000 B
29	20	20	20	10 N	500	150	30	200 N	200	0.02	24.0	.40 L	1.0 N	10	0.000 B	0.0000 B
30	20	20	20	10 N	500	100	50	200 N	300	0.03	18.0	.40 L	1.0 N	20	0.000 B	0.0000 B
31	20	20	15	10 N	500	100	30	200 N	300	0.03	21.0	.40 L	1.0 N	10	0.000 B	0.0000 B
32	20	20	20	10 N	700	200	30	200 N	200	0.04	25.0	.40 L	1.0 N	10	0.000 B	0.0000 B
33	20	20	20	10 N	700	100	30	200 N	300	0.03	20.0	.40 L	1.0 L	20	0.000 B	0.0000 B
34	50	20	20	10 N	500	100	30	200 N	150	0.05	27.0	.40 L	1.0 L	10	0.000 B	0.0000 B
35	50	20	20	10 N	500	150	50	200 N	200	0.05	27.0	.40 L	1.0 N	10	0.000 B	0.0000 B
36	20	20	20	10 N	500	100	50	200 N	200	0.04	29.0	.40	1.0 N	10	0.000 B	0.0000 B
37	70	20	20	10 N	500	200	20	200 N	300	0.02	36.0	.50	1.0 L	10	0.000 B	0.0000 B
38	30	20	20	10 N	300	200	20	200 N	150	0.02 N	48.0	.40	1.0 L	20	0.000 B	0.0000 B
39	30	20	20	10 N	500	200	20	200 N	200	0.03	41.0	.40	1.0 L	10	0.000 B	0.0000 B
40	20	15	20	10 N	500	70	50	200 N	200	0.07	23.0	.40	1.0	20	0.000 B	0.0000 B
41	50	20	20	10 N	500	100	50	200 N	300	0.06	28.0	.40	1.0	20	0.000 B	0.0000 B
42	30	20	20	10 N	700	200	30	200 N	300	0.05	20.0	.40 L	1.0	10	0.000 B	0.0000 B
43	20	20	20	10 N	300	100	50	200 N	300	0.04	18.0	.40 L	1.0 N	20	0.000 B	0.0000 B
44	20	20	30	10 N	300	150	50	200 N	200	0.09	33.0	.40 L	1.0 N	30	0.000 B	0.0000 B
45	50	20	20	10 N	200	150	50	200 N	200	0.11	25.0	.40 L	1.0 N	30	0.000 B	0.0000 B
46	30	15	15	10 N	500	100	50	200 N	200	0.03	40.0	1.40	1.0 N	20	0.000 B	0.0000 B

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-B	S-BA	S-BE	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB
47	41 46 55	119 28 54	7.0	1.00	.70	.70	1000	20	500	1.0	30	50	30	50	5 N	20 L
48	41 47 18	119 28 5	3.0	1.00	1.50	1.00	1000	20	700	1.5	30	50	30	50	5 N	20 L
49	41 47 39	119 27 42	7.0	1.00	1.50	.50	1000	20	700	1.0	20	50	20	50	5 N	20 L
50	41 47 44	119 27 30	5.0	1.00	1.00	1.00	1000	20	700	1.0	30	50	20	50	5 N	20 L
51	41 48 5	119 27 50	15.0	1.00	1.50	.70	1000	20	700	1.0	10	50	30	50	5 N	20 L
52	41 47 52	119 27 1	5.0	1.00	.70	1.00	1500	20	500	1.0 L	70	70	30	50	5 N	20 L
53	41 47 38	119 26 56	3.0	1.00	1.00	.70	1000	15	700	1.0	20	50	30	50	5 N	20 L
54	41 47 30	119 26 53	5.0	1.00	1.00	.70	1000	15	700	1.0	20	50	30	50	5 N	20 L
55	41 47 26	119 26 30	5.0	1.00	1.50	1.00	1500	15	700	1.0	20	50	20	50	5 N	20 L
56	41 47 31	119 26 26	5.0	1.00	1.00	.70	1000	20	700	1.0	20	50	20	50	5 N	20 L
57	41 48 17	119 23 56	5.0	1.50	1.50	.70	1000	20	1000	1.5	20	50	30	50	5 N	20 L
58	41 47 53	119 23 39	5.0	1.50	1.50	.70	1500	20	1000	1.5	20	50	20	50	5 N	20 L
59	41 47 48	119 23 53	5.0	1.00	1.00	.70	1500	20	700	1.5	10	50	30	50	5 N	20 L
60	41 50 43	119 28 54	10.0	1.00	1.00	1.00	1500	20	500	1.0 L	50	100	30	30	5 N	20 L

STREAM SEDIMENT SAMPLES FROM THE CHARLES SHELDON ANTELOPE RANGE AND THE SHELDON NATIONAL ANTELOPE REFUGE - NEVADA, OREGON--CONTINUED

SAMPLE	S-NI	S-PB	S-SC	S-SN	S-SR	S-V	S-Y	S-ZN	S-ZR	INST-HG	AA-ZN-P	AA-CD-P	AA-SB-P	CM-AS	AC-TH	AC-U
47	20	20	30	10 N	500	150	50	200 N	200	0,04	42,0	,70	1,0 N	10	0,000 B	0,0000 B
48	30	20	30	10 N	500	150	50	200 N	200	0,04	35,0	,70	1,0 N	20	0,000 B	0,0000 B
49	30	20	20	10 N	300	100	30	200 N	200	0,10	33,0	,90	1,0 N	30	0,000 B	0,0000 B
50	20	20	20	10 N	500	150	50	200 N	300	0,12	27,0	,60	1,0 N	50	0,000 B	0,0000 B
51	20	20	20	10 N	500	100	50	200 N	200	0,06	31,0	,90	1,0 L	30	0,000 B	0,0000 B
52	50	20	20	10 N	300	300	30	200 N	300	0,02 N	67,0	,70	1,0 N	20	0,000 B	0,0000 B
53	20	20	20	10 N	500	200	50	200 N	200	0,39	38,0	,70	1,0 N	20	0,000 B	0,0000 B
54	20	20	20	10 N	500	100	50	200 N	150	0,17	36,0	,60	1,0 N	30	0,000 B	0,0000 B
55	20	20	20	10 N	500	200	50	200 N	150	0,23	38,0	,80	1,0 N	30	0,000 B	0,0000 B
56	20	20	20	10 N	500	200	50	200 N	200	0,25	35,0	,60	1,0 L	20	0,000 B	0,0000 B
57	20	20	20	10 N	500	100	30	200 N	300	0,04	33,0	,60	1,0 L	20	0,000 B	0,0000 B
58	20	20	15	10 N	500	100	30	200 N	300	0,03	27,0	,50	1,0 N	20	0,000 B	0,0000 B
59	20	20	15	10 N	300	100	50	200 N	300	0,10	36,0	,70	1,0 N	10	0,000 B	0,0000 B
60	50	20	30	10 N	500	300	50	200 N	300	0,09	25,0	,40	1,0	10	0,000 B	0,0000 B