2780 0006

Page 1 (144)
Item 14

URANIUM-OCCURRENCE REPORT

Quad Name A90< Vya >

Quad Scale A100< 2,5,0,0,0,0 >

Deposit No. B40< 14 >

Deposit Name A10 < Snow Creek >

Synonym Name(s) A11 < Foster Property >

District or Area A30 < Leonard Creek >

Country A40 <U,S> [U,S] State Neveda

State Code A50 <3,2> [3,2] County A60 < Humboldt >
(Enter code twice from List D)

Position from Prominent Locality A82 < Ten km north of the Leonard Creek Ranch Ranch and 6.5 km south of Duffer Peak. >

Field Checked G1 <8,0|0,7> By G2< Castor, S. B. / Mitchell, T. P. >
Yr Mo — Last name, First, Initial

Latitude A70 <4,1|3,6|2,4,N> Longitude A80 <1,1,8|4,3|2,0,W>
Deg Min Sec — Deg Min Sec

Township A77 <4,3|N> Range A78 <2,8|E> Section A79 <3,5> & 36
N/S E/W

FT/M

Meridian A81 < Mt. Diablo > Altitude A107 < 6500 ft >

Quad Scale A91 <6,2,5,0,0> Quad Name A92 < Duffer Pk., Nev. >
(7½' or 15' quad)

Physiographic Province A63 <1,2| Basin and Range >
(List K)

Location Comments A83 < From the Leonard Creek Ranch, drive about 6 mi north past the Tipperary Mine. Turn left on a jeep trail just past the Snow Creek crossing > *

Location Sketch Map:

BFE 1236
4/19/78

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Commodities Present:
C10 <U, M, O>

Commodities Produced:
MAJOR < > COPROD < >

MINOR < > BYPROD < >

Potential Commodities:
POTEN <U, M, O> OCCUR < >

Commodity Comments C50 < >

Status of Exploration and Development A20 < 3 >
(1 = occurrence, 2 = raw prospect, 3 = developed prospect, 4 = producer)

Comments on Exploration and Development L110 < A drilling project has been initiated on this property since our examination. >

Property is (A21) (Active) A22 (Inactive) (Circle appropriate labels)

Workings are M120 (Surface) M130 (Underground) M140 (Both)

Description of Workings M220< Several bulldozed trenches. >

Cumulative Uranium Production PROD YES (NO) SML MED LGE (circle)

DH2 accuracy thousands of lb. years grade
G7<U> G7A< > G7B<LB> G7C< > G7D< % U3O8>

Source of Information D9 < >

Production Comments D10 < >

Reserves and Potential Resources

EH accuracy thousands of lb. year of est. grade
E1<U> E1A< > E1B<LB> E1C< > E1D< % U3O8>

Source of Information E7 < >

Comments E8 < >

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Deposit Form/Shape M10 < Steeply dipping veins and a possible manto. >

Length M40 < 600 > M41 < FT/M > (FT/M)

Width M50 < 15-60 > M51 < M >

Thickness M60 < unknown > M61 < >

Strike M70 < ENE >

Dip M80 < horiz to 70 N >

Size M15 (circle letter):

1b U308

A 0 - 20,000
B 20,000 - 200,000
C 200,000 - 2 million
D 2 million - 20 million
E More than 20 million

Tectonic Setting N15 < Mobile belt >

Major Regional Structures N5 < High-angle NE fault about 2 km SE of occurrence. >

Local Structures N70 < Steeply-dipping ENE shears and alaskitic dikes. >

Host-FM. Name U1 < > Member U2 < >

Host Rock K1 < JURT | B | Light to dark-gray, fine-grained clastic rocks metamorphosed to slate and phyllite, and cut by leucocratic dikes with aplitic to pegmatitic textures. Faintly foliated biotite granodiorite just north of occurrences. >
(Age) (Rock type, texture, composition, color, alteration, attitude, geometry, structure, etc.)

Host-Rock Environment U3 < Marine clastic and intrusive igneous. >
(Sed. dep. environ., metamorphic facies, ign. environ.)

Comments on Associated Rocks U4 < Dark greenish gray metavolcanic rocks and minor amounts of bedded calc-silicate rock. >

Ore Minerals C30 A variety of secondary uranium minerals, including uranyl phosphates arsenates, and silicates. Coffinite was tentatively identified.

Gangue Minerals K4 < Chalcedony, pyrite, barite and limestone. Native arsenic tentatively identified. >

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Alteration N75 <Argillic, sericitic, and silicic. >

Reductants U5 < Sulfide is present in places. Limonite is abundant and probably represents oxidized sulfide. >

Analytical Data (General) C43 <Up to 0.11 percent U 0, 0.16 percent As, and 0.2 percent Cu. Ag, Ba, C, F, Mo, Sb, W, and Zn are also high in some samples. >

Radiometric Data (General) U6 <Background in metamorphic rocks is 60 to 80 cps. (No. times background and dimensions) in granitic rock 100 - 200 cps. Maximum radioactivity measured at 6500 cps, with areas up to 30 m wide and 100 m long average 500 cps. >

Ore Controls K5 <Three areas of exposed uraniferous rock lie in a 150 m by 300 m area elongated ENE (see map, p. 5). The most easterly exposure is the largest (30 m x 100 m) and consists of radioactive chalcedony which appears to form a shallowly dipping mass. Radioactivity is generally restricted to ENE shears and irregular chalcedony masses. In one place uranium is concentrated along limonitized fracture in an alaskite dike. >

Deposit Class C40 < Volcanogenic > Class No. U7 < | | >

Comments on Geology N85 < The uranium was probably introduced, along with silica, by hot water ascending along ENE fracture. A line of presently active cold water springs is along strike west of the occurrences (see map, p. 5). The large easterly exposure may be a sinter mound formed around an extinct hot spring. >

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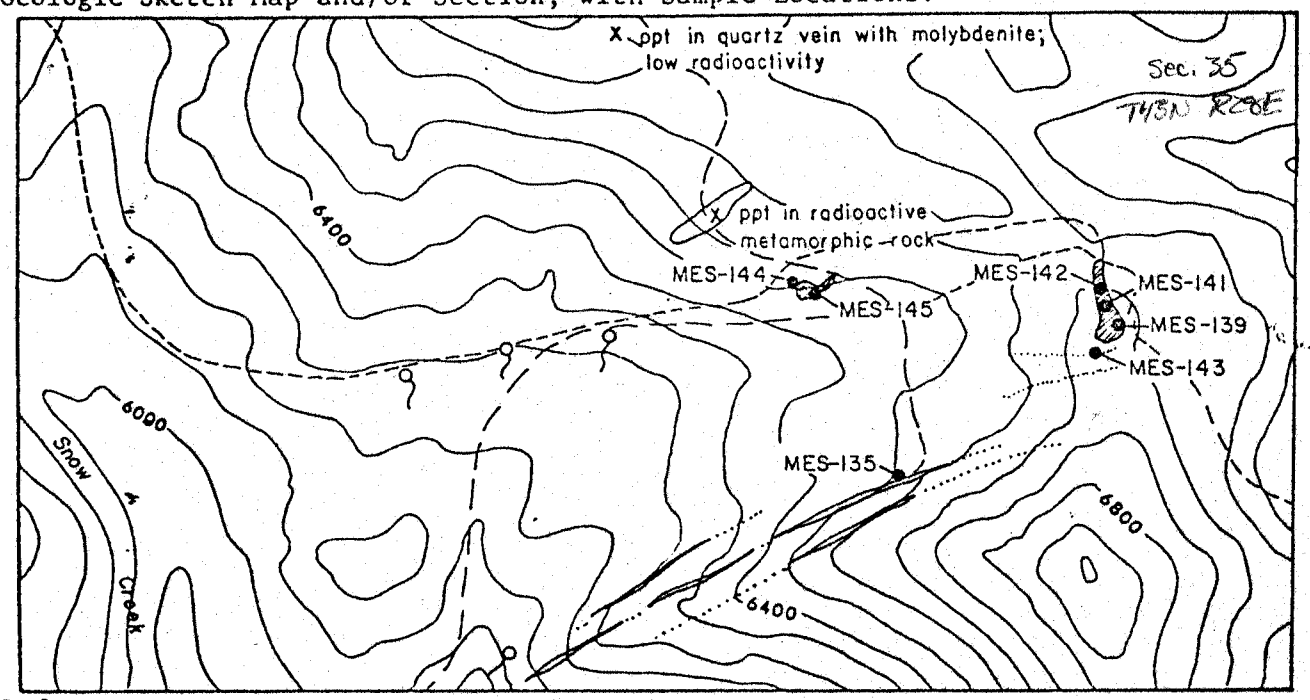
Uranium Analyses:

Sample No.	Sample Description	Uranium Analysis
MES 135	Grab sample of alaskite with silica veinlets which carry sulfide.	207 ppm U_3O_8
Grab sample 139	of breccia composed of alaskite and metasiltite clasts in limonitic chalcedony matrix with sulfide.	291 ppm U_3O_8
140	20-meter-long chip sample containing MES 139.	53 ppm U_3O_8
Grab sample 141	of breccia of metasiltite clasts in matrix of limonitic silica with trace sulfide.	344 ppm U_3O_8
142	10-meter-long chip sample of silicified breccia clasts are metasiltite.	52 ppm U_3O_8
143	Grab sample of alaskite.	3 ppm U_3O_8

Geologic Sketch Map and/or Section, with Sample Locations:



References:

F1 < U.S. Atomic Energy Commission Preliminary Reconnaissance Report 3485. >

F2 <

F3 <

F4 <

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Continuation from p. 1-5:

Label

A83 < and drive about 2 mi. Workings can be seen on hillsides on both sides of the road and at the pass at the end of the road.>

Uranium Analyses>

Sample No.	Sample Description	Uranium Analysis
MES 144	Breccia consisting of black shale clasts in sparse limonitic silica and clay matrix - green secondary U min. Also contains pyrite veinlets. Grab sample	.11% U_3O_8
145	Silicified breccia - most of the clasts were black shale - locally contains sulfide. 10-meter-long chip sample.	80 ppm U_3O_8
256	Granite rocks. Grab sample	21 ppm U_3O_8
390	alaskite dike	8 ppm U_3O_8