

Semi-Annual Ground-Water Monitoring Report — Second Half, 1996

**L-Bar Uranium Mine,
Cibola County, New Mexico**

Prepared for:

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1.0 INTRODUCTION

The enclosed Semi-Annual Ground-Water Monitoring Report contains results of sample analyses for the second half of 1996 for the L-Bar Uranium facility, as required by conditions 12 and 31 of NRC Materials License SUA-1472, Amendment 26, and 10 CFR 40, Section 40.65.

The laboratories used for this round of analyses were Core Laboratories of Aurora, Colorado, for most non-radiological analyses, and Core Laboratories of Casper, Wyoming, for radiological and selenium analyses.

L-BAR MINE
Well MW-1AGround-Water Sample
Date Sampled: 10/16/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)Elevation	6,222.94
Top of Casing (TOC) (ft AMSL)	6,224.44
Depth to Water from TOC (ft)	109.49
Water Level (ft AMSL)	6,114.95
Temp (°C)	17.0
pH	7.65
Conductivity (µmhos/cm @ 25°C)	4,650
Cl (mg/l)	99.8
SO ₄ (mg/l)	1,600
NO ₃ (mg/l)	<0.1
Ni (mg/l)	<0.04
Sb (mg/l)	<0.1
Se (mg/l)	0.005
U (mg/l)	<0.001
Ra226 (pCi/l)	1
Ra228 (pCi/l)	0.3
Th230 (pCi/l)	0.8

(<) = Result less than detection limit

L-BAR MINE
Well MW-2AGround-Water Sample
Date Sampled: 10/15/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,186.58
Elevation Top of Casing (TOC) (ft AMSL)	6,189.56
Depth to Water from TOC (ft)	NA
Water Level (ft AMSL)	NA
Temp (°C)	19.0
pH	6.72
Conductivity (µmhos/cm @ 25°C)	14,100
Cl (mg/l)	781
SO ₄ (mg/l)	6,000
NO ₃ (mg/l)	280

NA = Not Applicable - pumpback well

L-BAR URANIUM MINE

SEMI-ANNUAL GROUND-WATER MONITORING REPORT
SECOND HALF — 1996L-BAR MINE
Well MW-3AGround-Water Sample
Date Sampled: 10/16/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,155.76
Elevation Top of Casing (TOC) (ft AMSL)	6,157.51
Depth to Water from TOC (ft)	25.63
Water Level (ft AMSL)	6,131.88
Temp (°C)	19.0
pH	7.2
Conductivity (µmhos/cm @ 25°C)	17,000
Cl (mg/l)	668
SO ₄ (mg/l)	10,000

L-BAR URANIUM MINE

SEMI-ANNUAL GROUND-WATER MONITORING REPORT
SECOND HALF — 1996

L-BAR MINE
Well MW-14

Ground-Water Sample
Date Sampled: 10/16/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,154.00
Elevation Top of Casing (TOC) (ft AMSL)	6,155.70
Depth to Water from TOC (ft)	37.40
Water Level (ft AMSL)	6,118.30
Temp (°C)	20.0
pH	7.13
Conductivity (µmhos/cm @ 25°C)	10,800
Cl (mg/l)	449
SO ₄ (mg/l)	6,000

L-BAR URANIUM MINE

SEMI-ANNUAL GROUND-WATER MONITORING REPORT
SECOND HALF — 1996L-BAR MINE
Well MW-17BGround-Water Sample
Date Sampled: 10/16/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,180.37
Elevation Top of Casing (TOC) (ft AMSL)	6,181.62
Depth to Water from TOC (ft)	43.28
Water Level (ft AMSL.)	6,138.34
Temp (°C)	18.5
pH	6.82
Conductivity (µmhos/cm @ 25°C)	11,500
Cl (mg/l)	373
SO ₄ (mg/l)	5,000
NO ₃ (mg/l)	360
Ni (mg/l)	<0.04
Sb (mg/l)	<0.1
Se (mg/l)	0.003
U (mg/l)	0.032
Ra226 (pCi/l)	10.2
Ra228 (pCi/l)	3.5
Th230 (pCi/l)	0.5
CN (mg/l)	0.05

(<) = Result less than detection limit

L-BAR MINE
Well MW-29AGround-Water Sample
Date Sampled: 10/15/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,194.00
Elevation Top of Casing (TOC) (ft AMSL)	6,194.84
Depth to Water from TOC (ft)	58.44
Water Level (ft AMSL)	6,136.40
Temp (°C)	17.0
pH	7.41
Conductivity (µmhos/cm @ 25°C)	7,010
Cl (mg/l)	104
SO ₄ (mg/l)	3,000
NO ₃ (mg/l)	<0.1
Ni (mg/l)	<0.04
Sb (mg/l)	<0.1
Se (mg/l)	0.003
U (mg/l)	<0.001
Ra226 (pCi/l)	7.2
Ra228 (pCi/l)	4.3
Th230 (pCi/l)	0.2

(<) = Result less than detection limit

L-BAR MINE
Well MW-50Ground-Water Sample
Date Sampled: 10/15/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,186.69
Elevation Top of Casing (TOC) (ft AMSL)	6,188.34
Depth to Water from TOC (ft)	49.58
Water Level (ft AMSL)	6,138.76
Temp (°C)	17.0
pH	7.27
Conductivity (µmhos/cm @ 25°C)	11,800
Cl (mg/l)	516
SO ₄ (mg/l)	4,000
NO ₃ (mg/l)	490
Ni (mg/l)	<0.04
Se (mg/l)	NA

(<) = Result less than detection limit
NA = Not Analyzed

L-BAR URANIUM MINE

SEMI-ANNUAL GROUND-WATER MONITORING REPORT
SECOND HALF — 1996L-BAR MINE
Well MW-57Ground-Water Sample
Date Sampled: 10/21/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,130.76
Elevation Top of Casing (TOC) (ft AMSL)	6,131.71
Depth to Water from TOC (ft)	25.89
Water Level (ft AMSL)	6,105.82
Temp (°C)	12.0
pH	8.00
Conductivity (µmhos/cm @ 25°C)	4,550
Cl (mg/l)	80.4
SO ₄ (mg/l)	2,100

L-BAR MINE
Well MW-58Ground-Water Sample
Date Sampled: 10/21/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,148.29
Elevation Top of Casing (TOC) (ft AMSL)	6,149.75
Depth to Water from TOC (ft)	35.86
Water Level (ft AMSL)	6,113.89
Temp (°C)	11.0
pH	8.14
Conductivity (µmhos/cm @ 25°C)	2,840
Cl (mg/l)	59.5
SO ₄ (mg/l)	800

L-BAR URANIUM MINE

SEMI-ANNUAL GROUND-WATER MONITORING REPORT
SECOND HALF — 1996L-BAR MINE
Well MW-61Ground-Water Sample
Date Sampled: 10/25/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,124.05
Elevation Top of Casing (TOC) (ft AMSL)	6,124.87
Depth to Water from TOC (ft)	36.62
Water Level (ft AMSL)	6,088.25
Temp (°C)	13.0
pH	7.67
Conductivity (µmhos/cm @ 25°C)	6,980
Cl (mg/l)	106
SO ₄ (mg/l)	3,200

L-BAR URANIUM MINE

SEMI-ANNUAL GROUND-WATER MONITORING REPORT
SECOND HALF — 1996L-BAR MINE
Well MW-69Ground-Water Sample
Date Sampled: 10/15/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,158.51
Elevation Top of Casing (TOC) (ft AMSL)	6,159.69
Depth to Water from TOC (ft)	NA
Water Level (ft AMSL)	NA
Temp (°C)	15.0
pH	7.06
Conductivity (µmhos/cm @ 25°C)	12,100
Cl (mg/l)	596
SO ₄ (mg/l)	6,000
NO ₃ (mg/l)	2.9
Ni (mg/l)	<0.04
Sb (mg/l)	<0.1
Se (mg/l)	<0.001
U (mg/l)	0.91
Ra226 (pCi/l)	7.9
Ra228 (pCi/l)	5.3
Th230 (pCi/l)	0.4

NA = Not Applicable - pumpback well
(<) = Result less than detection limit

L-BAR URANIUM MINE

SEMI-ANNUAL GROUND-WATER MONITORING REPORT
SECOND HALF — 1996L-BAR MINE
Well MW-72Ground-Water Sample
Date Sampled: 10/16/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,163.31
Elevation Top of Casing (TOC) (ft AMSL)	6,164.52
Depth to Water from TOC (ft)	28.55
Water Level (ft AMSL)	6,135.97
Temp (°C)	15.0
pH	7.0
Conductivity (µmhos/cm @ 25°C)	7,670
Cl (mg/l)	179
SO ₄ (mg/l)	4,200

L-BAR URANIUM MINE

SEMI-ANNUAL GROUND-WATER MONITORING REPORT
SECOND HALF — 1996L-BAR MINE
Well MW-76Ground-Water Sample
Date Sampled: 10/18/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,135.50
Elevation Top of Casing (TOC) (ft AMSL)	6,136.22
Depth to Water from TOC (ft)	20.41
Water Level (ft AMSL)	6,115.81
Temp (°C)	14.0
pH	7.92
Conductivity (µmhos/cm @ 25°C)	7,660
Cl (mg/l)	107
SO ₄ (mg/l)	3,500

L-BAR URANIUM MINE

SEMI-ANNUAL GROUND-WATER MONITORING REPORT
SECOND HALF — 1996L-BAR MINE
Well MW-77Ground-Water Sample
Date Sampled: 10/18/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,143.04
Elevation Top of Casing (TOC) (ft AMSL)	6,143.66
Depth to Water from TOC (ft)	NA
Water Level (ft AMSL)	NA
Temp (°C)	17.0
pH	7.48
Conductivity (µmhos/cm @ 25°C)	8,520
Cl (mg/l)	277
SO ₄ (mg/l)	4,700

NA = Not Applicable - pumpback well

L-BAR MINE
Well MW-78Ground-Water Sample
Date Sampled: 10/25/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,149.67
Elevation Top of Casing (TOC) (ft AMSL)	6,150.73
Depth to Water from TOC (ft)	34.45
Water Level (ft AMSL)	6,116.28
Temp (°C)	14.0
pH	7.36
Conductivity (µmhos/cm @ 25°C)	6,600
Cl (mg/l)	139
SO ₄ (mg/l)	3,400

L-BAR URANIUM MINE

SEMI-ANNUAL GROUND-WATER MONITORING REPORT
SECOND HALF — 1996L-BAR MINE
Well MW-79Ground-Water Sample
Date Sampled: 10/19/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,134.23
Elevation Top of Casing (TOC) (ft AMSL)	6,135.37
Depth to Water from TOC (ft)	23.33
Water Level (ft AMSL)	6,112.04
Temp (°C)	15.0
pH	7.95
Conductivity (µmhos/cm @ 25°C)	7,470
Cl (mg/l)	105
SO ₄ (mg/l)	2,200

L-BAR MINE
Well MW-81Ground-Water Sample
Date Sampled: 10/18/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,164.40
Elevation Top of Casing (TOC) (ft AMSL)	6,165.26
Depth to Water from TOC (ft)	45.77
Water Level (ft AMSL)	6,119.49
Temp (°C)	14.0
pH	7.56
Conductivity (µmhos/cm @ 25°C)	8,660
Cl (mg/l)	204
SO ₄ (mg/l)	5,000
NO ₃ (mg/l)	32
Ni (mg/l)	<0.04
Sb (mg/l)	<0.1
Se (mg/l)	0.002
U (mg/l)	0.012
Ra226 (pCi/l)	6.7
Ra228 (pCi/l)	4.4
Th230 (pCi/l)	0.6

(<) = Result less than detection limit

L-BAR MINE
Well MW-91Ground-Water Sample
Date Sampled: 10/22/96

CONSTITUENT	VALUE
Ground Surface Elevation (ft AMSL)	6,188.36
Elevation Top of Casing (TOC) (ft AMSL)	6,190.24
Depth to Water from TOC (ft)	53.97
Water Level (ft AMSL)	6,136.27
Temp (°C)	15.0
pH	7.53
Conductivity (µmhos/cm @ 25°C)	6,280
Cl (mg/l)	38.1
SO ₄ (mg/l)	3,600
NO ₃ (mg/l)	<0.1
Ni (mg/l)	<0.04
Sb (mg/l)	<0.1
Se (mg/l)	<0.001
U (mg/l)	0.002
Ra226 (pCi/l)	6.7
Ra228 (pCi/l)	6.7
Th230 (pCi/l)	0.4

< = Result less than detection limit