APPENDIX 7-63

HYDROLOGY/ GEOLOGY MAP
OF
LITTLE BEAR WATERSHED

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Springs and seeps identified in the southern portion of the South Crandall lease area near or below the 600-foot cover line, 14 July 2004

Petersen Hydrologic, Survey July 2004.xls 27 Aug 04

	UTM coordinates NAD 27, Zone 12 S		Date	Flow (gpm)	T (°C)	pH S.U.	Cond (µS)	Comments
LB-2	486397	4365567	15-Jun-04	13.3	7.4	8.39	451	Spring flow originates from Blackhawk Formation above this location (monitored at bedrock-high below main spring area)
LB-12	486712	4365961	14-Jul-04	damp ground	---	---	---	Damp ground only, not enough flow to measure field parameters
LB-5A	486510	4366085	14-Jul-04	1.8	8.4	7.80	706	Discharges from base of Blackhawk Formation sandstone channel (not in potentially subsided area)
LB-7	486573	4366403	14-Jul-04	1.1	8.5	7.99	501	Seepage from base of Castlegate Sandstone/muddy landslide deposits in channel bottom
LB-7A	486969	4366426	14-Jul-04	seep/drip	---	---	---	Seepage from base of Castlegate Sandstone cliff, not enough flow to measure field parameters
LB-7B	487003	4366446	14-Jul-04	seep/drip	---	---	---	Seepage from base of Castlegate Sandstone cliff, not enough flow to measure field parameters
LB-7C	486998	4366398	14-Jul-04	0.21	11.4	8.44	424	Discharges from colluvial sediments near the Blackhawk Formation, Castlegate Sandstone contact

SCALE:
1" = 600'

BC: 6.9'
HIA: 5.0'
INTER: 100.9'
HC-4

Blind Canyon Seam Projections
(R2P2)

LB-7
LB-7A
LB-7B
LB-7C

Blind Canyon
600 ft. Cover

Blind Canyon
Outcrop Elv. 7875

LB-5A
(monitored)

LB-12

Bear
Canyon

Little Bear
Spring

Mill Fork

Little

DH 2-76A
BC: 4.0'
HIA: 5.3'
INTER: 94'

HCD-1
BC: 3.2'
HIA: 4.0'
INTER: 114'

LB-2
(monitored)

ARCO No. 4 Mine
(Old Works)

Property Boundary

MILL CREEK GRABEN

BLIND CANYON
SEAM

ACAD: Little Bear Spring

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SCALE:
1" = 600'

BC: 6.9'
HIA: 5.0'
INTER: 100.9'
HC-4

Hiawatha Seam Projections
(R2P2)

Hiawatha
600 ft. Cover

LB-7
LB-7A
LB-7B
LB-7C

Hiawatha Outcrop
Elv. 7812

LB-5A
(monitored)

Mill Fork

LB-12

Little Bear
Canyon

Little Bear
Spring

Drill Ho

DH 2-76A
BC: 4.0'
HIA: 5.3'
INTER: 94'

RECEIVED
SEP 10 2004
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MILL CREEK GRABEN

8800

8000

HCD-1
BC: 3.2'
HIA: 4.0'
INTER: 114'

INCORPORATED
APR 15 2005
DIV OF OIL GAS & MINING

LB-2
(monitored)

Property Boundary

HIAWATHA SEAM

ACAD: Little Bear Spring

SCALE:
1" = 600'

PRICE RIVER FORMATION

CASTLEGATE SANDSTONE

LB-7

LB-7A

LB-7B

LB-7C

NORTH HORN FORMATION

BLACK HAWK FORMATION

LB-5A
(monitored)

LB-12

Mill Fork

Bear Canyon

STAR POINT
SANDSTONE

Little Bear
Spring

MASUK MEMBER

MILL CREEK GRABEN

LB-2
(monitored)

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GEOLOGY

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