

 $November\ 3,\ 2011 \\ \verb|\Bil-fs-7189\eng\31\20281\Reports\501\ Broadway\ Ave\ S\Final\ Report\ MDEQ_RedLodge\_501\Broadway\Ave\S.docx$ 

Ms. Pebbles Clark Reclamation Specialist Montana Department of Environmental Quality Abandoned Mine Lands Program P.O. Box 200901 Helena, MT 59620-0901

Report of Subsidence Investigation – Phase 1 501 Broadway Avenue South Red Lodge, Carbon County, MT

Dear Ms. Clark:

The following memorandum summarizes the investigation activities performed by DOWL HKM during August and September 2011 in regards to a complaint of subsidence at the above referenced property located in Red Lodge, Montana. This work was completed as outlined in Task Order No. 19, which was issued pursuant to DEQ Contract No. 407033 between DOWL HKM (Contractor) and the Montana Department of Environmental Quality (DEQ). The purpose of Task Order No. 19 is for review of existing background data in the area of the subject property related to the settlement complaint by Mr. Marvin Dukart performing a limited site survey and inspection.

If you have any questions regarding this project, please contact me at (406) 869-6372 or email to cpeterson@dowlhkm.com.

Sincerely,

DOWL HKM

Charles L. Peterson, PG

Project Manager

Carla Van Siclen, PG Geologist/GIS Specialist

Encl. Memorandum Report and CD

### **MEMORANDUM**

TO: Ms. Pebbles Clark, Reclamation Specialist

Montana Department of Environmental Quality

Abandoned Mine Lands Program

FROM: Charles L. Peterson, PG, Project Manager

Carla Van Siclen, PG, Geologist/GIS Specialist

SUBJECT: Report of Subsidence Investigation – Phase 1

501 Broadway Avenue South Red Lodge, Carbon County, MT

DATE: November 3, 2011

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#### PROJECT DESCRIPTION

On August 24, 2011, on behalf of Mr. Marvin Dukart, owner of the subject property, the mayor of Red Lodge, Brian Roat, contacted the Montana Department of Environmental Quality Abandoned Mine Lands Program (DEQ-AML) regarding potential settlement at 501 Broadway Avenue South. The location of the subject property is shown on Figure 1 in Appendix A. According to the Mayor there "is a rapid subsidence going on at this address—in front with the sidewalk and at the front of the house—front porch is pulling away from the house." A request was made by the DEQ-AML to conduct an initial site visit to assess the reported settlement. Current and future assessment activities by the DEQ-AML and DOWL HKM are directed at determining if settlement at the subject is property is directly related to mine subsidence or other mining related activities.

On August 25<sup>th</sup>, 2011 DOWL HKM Professional Geologist, Carla Van Siclen, and Licensed Surveyor, Bob Rux, conducted a site inspection of the house and property and performed a limited spot elevation survey of the area of settlement at the front of the house. Photos were taken during the August 25<sup>th</sup> site visit (See Appendix B). On August 30<sup>th</sup> Charlie Peterson and Carla Van Siclen performed a second site inspection of the subject property to review the surveyed locations and observations made during the previous visit. The following sections provide the results of the survey and site inspection.

#### BACKGROUND

#### **Local Geologic Setting**

Red Lodge, Montana is located on the northern edge of the Beartooth Mountain Range along the Rock Creek valley. Quaternary alluvial terraces and recent alluvium overlie the Tertiary Fort Union Formation in the area. Figure 2 in Appendix A is a geologic map of the Red Lodge area (Lopez, 2005). A thick Quaternary alluvial terrace deposit (Qat2) forms the west edge of the valley and is referred to as the West Bench. Thinner deposits of Quaternary alluvium (Qat3 and Qat4) overlie the

Fort Union which has been eroded to form the east edge (East Bench) of the valley. The town of Red Lodge is underlain by Quaternary terrace deposits and recent alluvium (Qat1 and Qal).

Based on a review of published material and well logs, the thickness of the alluvium appears to vary from a few feet to over 100 feet in the valley bottom. As part of a preliminary study of the potential for subsidence in the Red Lodge and Bearcreek Areas, Chen-Northern (1987) advanced a drill hole (DH-3) to 450.5 feet approximately two to three blocks north of the subject property (Figure 3 in Appendix A). The base of the alluvium was encountered at a depth of 108 feet. At least 85 feet of alluvium was encountered in drill hole DH-4 advanced as part of the Spectrum (1998) investigation and grouting project. However, during well log research of the Montana Bureau of Mines and Geology (MBMG) Groundwater Information Center (GWIC) website several well logs along the central and east sides of town noted encountering relatively shallow (less than 25 feet) bedrock (Figure 3 in Appendix A).

Some of the wells penetrated bedrock fifty feet or more and were installed by different drilling companies. Note that the Object ID listed near each well can be used as a cross reference with Table 1 in Appendix C. Table 1 presents additional well information obtained directly from the GWIC website, with the exception of the "Depth to Bedrock" information which was added by DOWL HKM after review of the well logs. There is some indication that the exploration holes referenced in Campbell (1906) also encountered bedrock at a shallow depth. Based on this information, relatively shallow bedrock may exist below the subject property.

The Fort Union Formation is readily exposed along the east bench and consists of mainly shale, siltstone, sandstone, and coal deposits. The bedrock in the Red Lodge area dips approximately 25 degrees to the south-southwest toward the Beartooth Mountains (Lopez, 2005). The coal deposits are part of the Red Lodge-Bearcreek Coal Field, formerly the Red Lodge Coal Field (Roberts, 1999 and Woodruff, 1909). The coal deposits are present on the east and west benches as well as below the town of Red Lodge.

#### Groundwater

As previously mentioned; groundwater well information was retrieved from the MBMG GWIC database and reviewed. Well locations were plotted in ArcGIS using the latitude and longitude coordinates provided in the GWIC database and are shown on Figure 3 in Appendix A. Note that the accuracy of the coordinate locations provided by GWIC can vary substantially depending on the method used to locate the wells. According to the GWIC metadata, some wells were located using a more accurate Global Positioning System (GPS) and a site visit has been conducted. However, most of the wells were located by contract drillers and landowners using a township, range, section, and tract description and substantial errors in location are possible. Additional well information is provided in Table 1 in Appendix C.

The depth of groundwater below the surface near the subject property appears to be in the range of 5 to 18 feet. According to the MBMG GWIC website 15 long term monitoring stations exist in Carbon County. However, only one well (Object ID 32) is located in the valley bottom. This well is located approximately eight blocks north of the subject property and is completed at a depth of 38 feet in alluvium. Static water level readings have been collected at this site since 2002. Water level readings were relatively consistent from 2002 through 2010 and ranged from about 12 to 14 feet below ground surface. However, in 2011 the range in water level readings varied from about 9 feet

to 15.6 feet below the ground surface. Review of the United States Geological Survey (USGS) National Water Information System Mapper website, no long term groundwater monitoring sites maintained by the USGS are located in the town of Red Lodge. No additional water level information was reviewed for this study.

#### Mining History

Coal was first discovered along the east side of the Rock Creek drainage in the mid-1860's (Spectrum, 1989 and Anderson, 1983). There was no accessible market at the time, but with the completion of the Laurel to Red Lodge railroad in 1889, commercial mining commenced (Spectrum, 1989 and Anderson, 1983). The Red Lodge mining district consisted of two mines, the Sunset and Red Lodge Mines, referred to on the Carbon County Historical Society website as the West Side or Sunset Mine and the East Side or Sunrise Mine, respectively.

Campbell (1906) identifies eleven coal beds in the Red Lodge area and notes that additional thin beds of coal occur lower down in the rock section. Roberts (1999) states that "in the Red Lodge district, at least seven coal beds, originally designated as coal beds 1 through 7, were identified in the coal-bearing interval of the Fort Union." Two additional beds were later discovered which are referred to as beds Number (No.) 1½ and 4½ (Roberts, 1999 and Woodruff, 1909). According to Combo (1949), eight beds of coal (No. 1, 1½, 2, 3, 4, 4½, 5, and 6) are known to have been worked in the vicinity of Red Lodge.

Hard copies of the historic mine maps and information related to a project conducted by MSU-B College of Technology which took the historical mine maps and converted them to a three dimensional electronic format was provided to DOWL HKM by DEQ-AML. The MSU-B information indicates that maps for coal beds No. 1½, 2, 3, 4, 5, and 6 were located and converted to a digital format. A preliminary summary memo for the MSU-B project indicates that they were not able to locate any records for beds No. 4½, 7, or 8. There is also no information on coal bed No. 1 in the data from the MSU-B project. Although they may exist, it appears that historic mine maps for these four beds have not been located. Also, based on review of the Chen-Northern (1987) report, another map showing mining of the No. 2 bed below the town of Red Lodge exists. Historical mine maps exist for six of the eight beds known to be worked in the vicinity of Red Lodge (No. 1½, 2, 3, 4, 5, and 6). It is the understanding of DOWL HKM that no maps have been located for beds No. 1 or 4½ or beds No. 7 or 8, which *may indicate* these beds were not mined extensively in the Red Lodge area.

Mine workings underlie the East and West Benches as well as portions of the town of Red Lodge. Preliminary review of the Chen-Northern (1987) report, historical maps, and the data developed by MSU-B show that the No. 4 and No. 5 beds were mined in the area below the subject property. The No. 2 bed was mined to within approximately ½ block south of the subject property. The No. 2 bed would have had workings closest to the surface in the area of the subject property. However, no underground mine map of the No. 2 bed in this area has been located by the DEQ-AML. As part of a preliminary study of the potential for subsidence in the Red Lodge and Bearcreek Areas, Chen-Northern (1987) borrowed mine maps from Meridian Minerals and developed three maps of the Red Lodge area showing depth of cover, cumulative mined thickness, and subsidence potential. Electronic versions of these maps, which were imported into ArcGIS and geo-referenced by DOWL HKM are presented in their modified form as Exhibits 1, 2, and 3 in Appendix A. The cumulative mined thickness map (Exhibit 2 in Appendix A) shows that anywhere from zero to 18 feet of

material has been mined from below the area of the subject property with what appears to be the area of greatest thickness (18 feet) located near the northeast corner of the lot. Chen-Northern (1987) also developed cross sections of mine limits (Exhibit 4 in Appendix A), the locations of which are shown on Exhibit 1. However, note that cross section A-A' and C-C' are mislabeled and should be reversed when comparing the cross sections to the maps.

Relatively shallow bedrock may exist below the subject property, however, based on Chen-Northerns' interpretation (Exhibit 1 and Cross section B-B'), it appears that mining in the area of the subject property occurred about 500 feet below the ground surface and deeper. South of the subject property (about ½ block) it appears that the No. 2 bed was mined at a depth of between 300 and 350 feet. Note that the original mine maps and any maps interpreted from the original mine maps may have some level of inaccuracy associated with them. Reasons for these inaccuracies could range from original survey errors to assumptions made during conversion to an electronic format. The location of the pillars, voids, tunnels, and any below grade features should be considered approximate.

The coal production in 1889 was 6,000 tons and in 1920 production was over a million tons (Spectrum, 1989 and Anderson, 1983). In 1924, coal production began in Colstrip, Montana, forcing a cut back in production at Red Lodge (Spectrum, 1989 and Anderson, 1983). The West Side Mine closed July 31, 1924 and the East Side Mine closed June 30, 1932 (Zupan and Owen, 2000). According to the Mining Artifacts & History website, "The Great Depression forced more mines to close, and in 1943 an underground explosion killed 74 men at the Smith Mine in Bearcreek four miles east of Red Lodge, devastating the community and effectively ending coal mining in Carbon County."

Subsidence related to the mining activities has been documented east of Red Lodge and in the Bear Creek Area (Spectrum, 1989). Chen-Northern (1987) only identified two small areas of moderate subsidence potential on the east side of town, just south of the subject property (Exhibit 3, Appendix A). It has been approximately 70 to 80 years since mining ceased in the Red Lodge area. Although subsidence related to mining could have occurred in that time, based on the information reviewed by DOWL HKM, it appears that the Hymer Mine Shaft subsidence on Adams Avenue South is the only documented active subsidence within the town of Red Lodge.

#### <u>History of the Subject Property</u>

DOWL HKM reviewed the Sanborn Fire Insurance maps of the property from 1891, 1896, 1901, 1907, 1912 and 1927 at the Carbon County Historical Society in Red Lodge, Montana. There is no Sanborn map coverage of the property in 1891, 1896, or 1901. The 1907 Sanborn map shows a small cabin located in the south-central portion of the lot. However, on the 1912 and 1927 Sanborn maps the cabin is gone and a structure/home is shown in the same general location as the current home. There is also a small structure in the northwest corner of the property. It appears that the main part of the house was constructed between 1907 and 1912. No detailed information regarding the settlement or the progression of settlement was obtained prior to the site inspection.

### **FIELD INVESTIGATION**

### **Site Inspection**

The site inspection included visual inspection of the property and the exterior of the house at 501 Broadway Ave. S. and taking photographs of pertinent features (See Figure 4 in Appendix A, and Appendix B). The general condition of the sidewalk and street (Broadway Ave. S.) were also noted. The residence at 501 Broadway Ave. S. is a two story wooden framed house built upon a mixed concrete/concrete block foundation. There is a set of concrete stairs leading up to the front entrance. There is a deck and entrance at the back of the house. The deck obscures the south half of the west foundation wall. There appears to be additions to the original structure at the front and back of the house. Most of the concrete portion of the foundation appears to be covered with a stucco facade. The entire foundation appeared to have been recently painted. The house is provided with city water and sanitary sewer service, underground natural gas and overhead electric service.

There is a concrete (city) sidewalk along the east side of the property. A concrete walkway was observed leading from the city sidewalk to the front steps. A low spot and significant crack in the city sidewalk was very apparent. DOWL HKM probed the crack in the city sidewalk and it appeared to be open to a depth of about 4 inches. An offset crack in the walkway just below the front steps was also observed. The settlement in the city sidewalk appears to have existed for a period of time as grass had grown into the low spot along the crack. However, fresh pieces of broken concrete in the city sidewalk and a fresh looking surface to the cracked concrete in the walkway possibly indicate recent movement.

The yard surrounding the house consists of a lawn and a few trees and ornamental bushes and no underground sprinkler system was observed. There is a detached garage/structure located along the west side of the lot. There was no obvious depressions in the yard with the exception of the area near the cracked concrete sidewalk east of the house. A crack was also noted in the asphalt pavement of Broadway Ave. S. that generally lines up with the cracks in the sidewalk and walkway but no obvious low spot was observed in the street.

Most of the house foundation is visible but somewhat obscured by paint and stucco. However, overall the foundation appeared to be in relatively good condition with the exception of the area near the northeast corner of the house. Two cracks were observed on either side of the concrete steps at the contact with the foundation (front addition) of the house. These cracks were open and the crack on the north side appeared to be offset slightly down to the east (indicating some recent settlement of the concrete stairs). Another open crack was observed near the northeast corner of the house where the front addition and the main foundation of the house meet. The crack was observed in the stucco façade and may not penetrate the entire foundation wall. This open crack may indicate possible settlement of a portion of the foundation, although it may just be the stucco façade cracking in response to the settlement of the front stairs. Other hairline cracks were observed in the foundation (Figure 4 in Appendix A).

### **Spot Elevation Survey**

Spot elevation measurements of the ground surface were collected of the city sidewalk and concrete walkway on August 25<sup>th</sup>, 2011. Survey locations are shown on Figure 4 in Appendix A. The vertical elevations and horizontal positions for these points were measured using a Trimble R-6 dual

frequency survey grade GPS receiver in RTK mode. The high level of horizontal accuracy that the survey grade GPS receiver provided will enable the same spot elevation locations to be reestablished in the future. The vertical datum for this survey is North American Vertical Datum (NAVD) 88. The horizontal datum is North American Datum (NAD) 83. Horizontal coordinates are Montana Zone 2500 State Plane. Horizontal units are International Feet and vertical units are U.S. Survey Feet.

As was observed during the site visit, the survey shows that the low spots occur along the crack in the city sidewalk and concrete walkway (Figure 4a in Appendix A).

#### CONCLUSIONS

- It appears that recent settlement of the city sidewalk, concrete walkway and front stairs at the subject property has occurred relatively recently. There is also an open crack near the northeast corner of the foundation that may indicate possible settlement of a portion of the foundation, although it may just be the stucco façade cracking in response to the settlement of the front stairs.
- The settlement appears to be limited to the northeast corner of the lot and city sidewalk.
- Based on well log review, relatively shallow (less than 25 feet) bedrock may exist below the subject property. However, mining activities appear to have occurred at depths of between 300 and 350 feet and deeper about ½ block south of the subject property and 500 feet and deeper in the area of the subject property.
- There are many reasons for the settlement of flatwork (sidewalk and walkways) and foundations that are unrelated to mine subsidence. The age of the flatwork and foundation, type of construction, foundation depth, soil and rock type present below the foundation, depth to groundwater or groundwater fluctuations, utility related issues, extreme weather conditions, and tree roots can contribute factors to the current condition of the flatwork and foundations. The location and orientation of the settlement observed in the flatwork and foundation indicate that there may be a utility related issue occurring such as a leak in a water supply line that services the house.
- Preliminary review of the Chen-Northern (1987) report, historical maps, and the data developed by MSU-B show that the No. 4 and No. 5 beds were mined in the area below the subject property. A cumulative mined thickness map developed by Chen-Northern (1987) shows that anywhere from zero to 18 feet of material has been mined from below the area of the subject property. Chen-Northern (1987) also shows the No. 2 bed was mined to within approximately ½ block south of the subject property. The No. 2 bed would have had workings closest to the surface in the area of the subject property. However, no underground mine map of the No. 2 bed in this area has been located by the DEQ-AML. Note that the original mine maps and any maps interpreted from the original mine maps may have some level of inaccuracy associated with them and the location of the pillars, voids, tunnels, and any below grade features should be considered approximate.

### **RECOMMENDATIONS**

Based upon review of the information supplied by DEQ-AML, published information, the site inspection, and survey results, to determine if the observed settlement is directly related to mine subsidence or other mining related activities, the following recommendations are made:

- Leaking water lines can cause soil settlement or migration of fine-grained soil along the utility trench and subsequent settlement. DOWL HKM recommends the water supply line servicing the house be located and tested for leaks and all utility line locations be documented. DOWL HKM has requested a utility locate in order to confirm the utility locations including the water line that services the house. On September 14, 2011, DOWL HKM submitted a utility locate request to the one-call utility locate service to have the utilities marked for this property. However, no utilities had been marked as of September 17, 2011. A follow-up field check should be conducted to make sure utilities have been marked.
- It is recommended that periodic site inspections and surveys be completed to monitor and document any potential settlement. The survey should include repeating the initial survey to document the location, rates, and magnitude of any subsidence. It is recommended that a survey be conducted before winter (November) and again in the spring after the snow melts.
- DEQ-AML should keep in touch with the land owner on regular basis to monitor the situation.
- DOWL HKM recommends that an interview be conducted with the landowner using a standardized questionnaire format to develop a historical perspective of the settlement observed.
- Instrumentation could potentially be installed, such as crack monitors, to gauge whether there is any additional movement in the house foundation.
- The house is built upon a mixed concrete/concrete block foundation. Most of the house foundation is visible but somewhat obscured by paint and stucco. However, overall the foundation appeared to be in relatively good condition with the exception of the area near the northeast corner of the house. As previously mentioned, there are many reasons for the settlement of flatwork (sidewalk and walkways) and foundations. Differences in foundation construction techniques within one house foundation can sometimes magnify even minor settlement of the surface soil. If the water/utility lines are found to be in sound condition, DOWL HKM recommends a shallow foundation investigation near the northeast corner of the house to document the soil types present below the footings as well as footing types and depths.
- An attempt should be made to locate any additional mine maps or mine related information, particularly the map of the No. 2 bed or any information referenced in the Chen-Northern (1987) report specific to the Red Lodge area mining.

- A sub-surface exploration program may be considered after the above mentioned recommended tasks are completed.
- The objectives of any sub-surface exploration program are recommended to determine basic geologic conditions including documenting depth to groundwater, soil types and thicknesses, and depth to bedrock. The exploration program may be designed to establish the depth, thickness, and current condition of the existing coal beds. A thorough and well designed exploration program can most likely determine whether collapse of the mined coal seams has occurred locally. However, documenting active subsidence is a separate issue and a much more difficult task. There are numerous types of drill rigs and drilling contractors that can penetrate the coarse alluvium and bedrock to the depths required by any drilling program.

#### LIMITATIONS AND CONCERNS

• Very little sub-surface information exists near the subject property and no subsurface evaluation was conducted of the subject property for this study.

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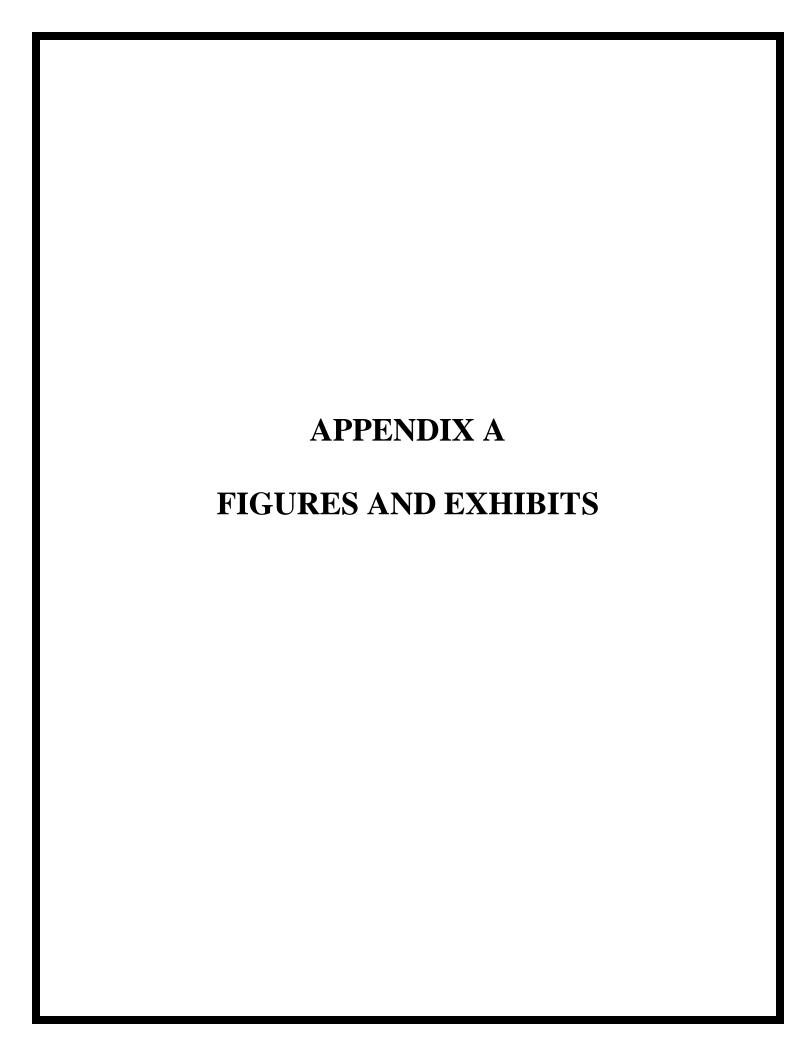
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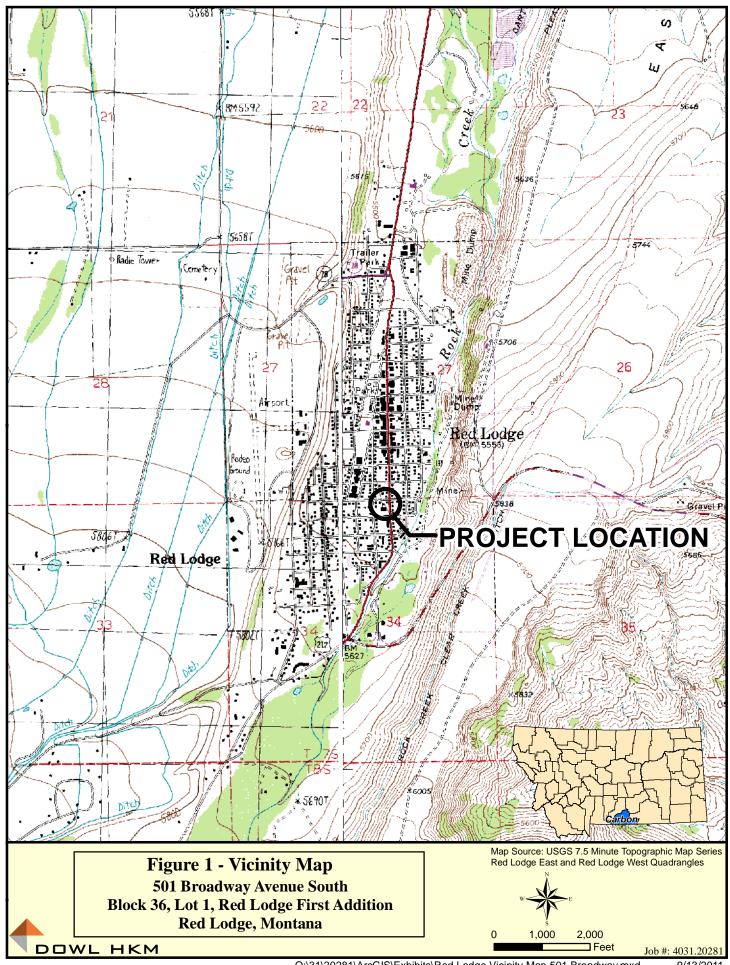
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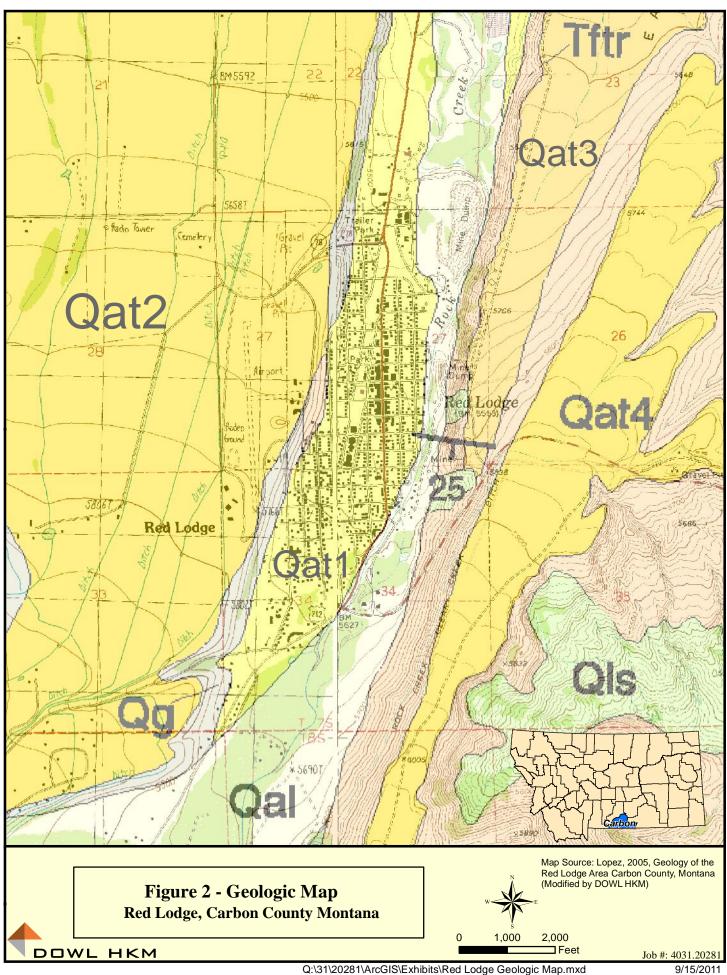
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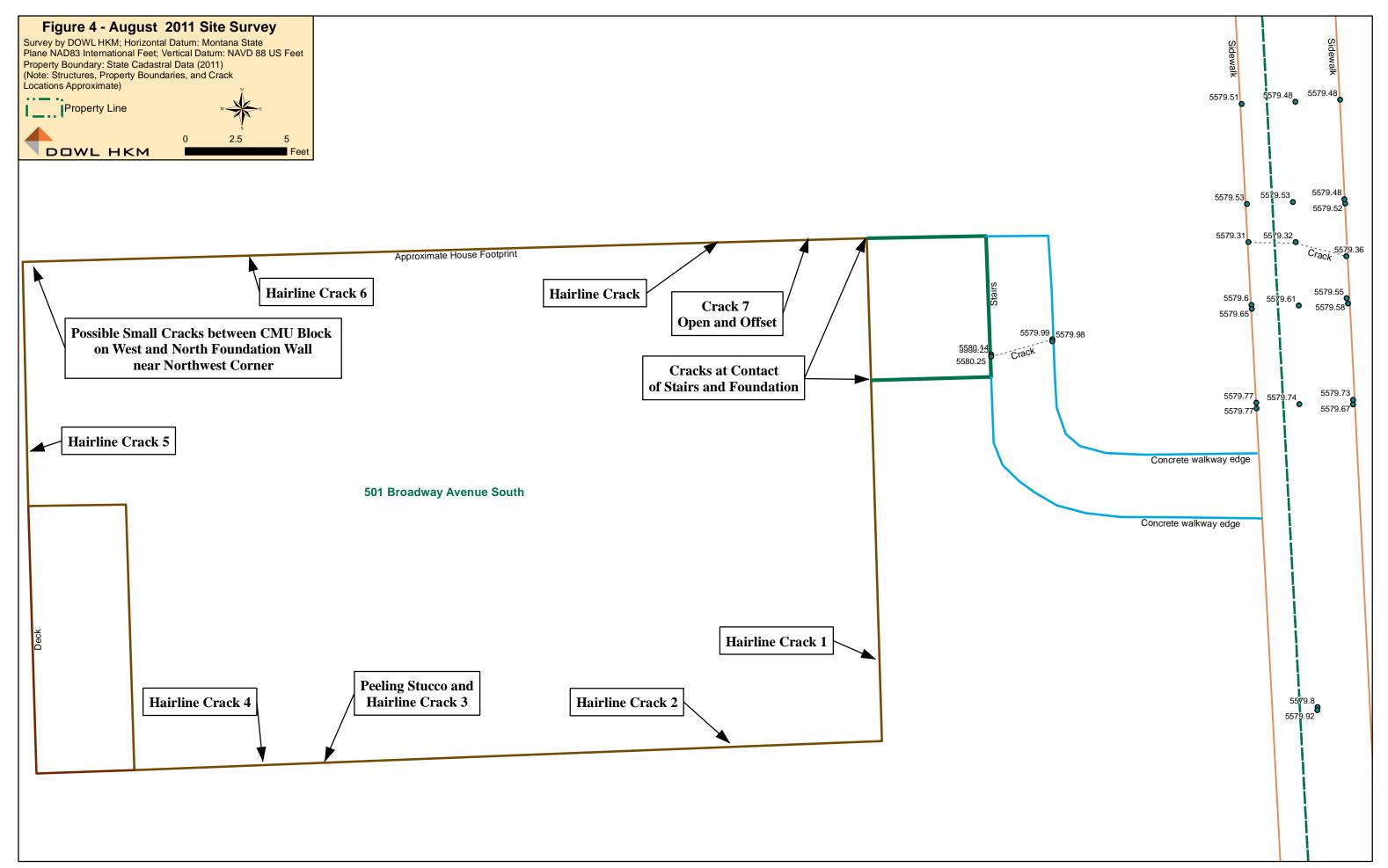
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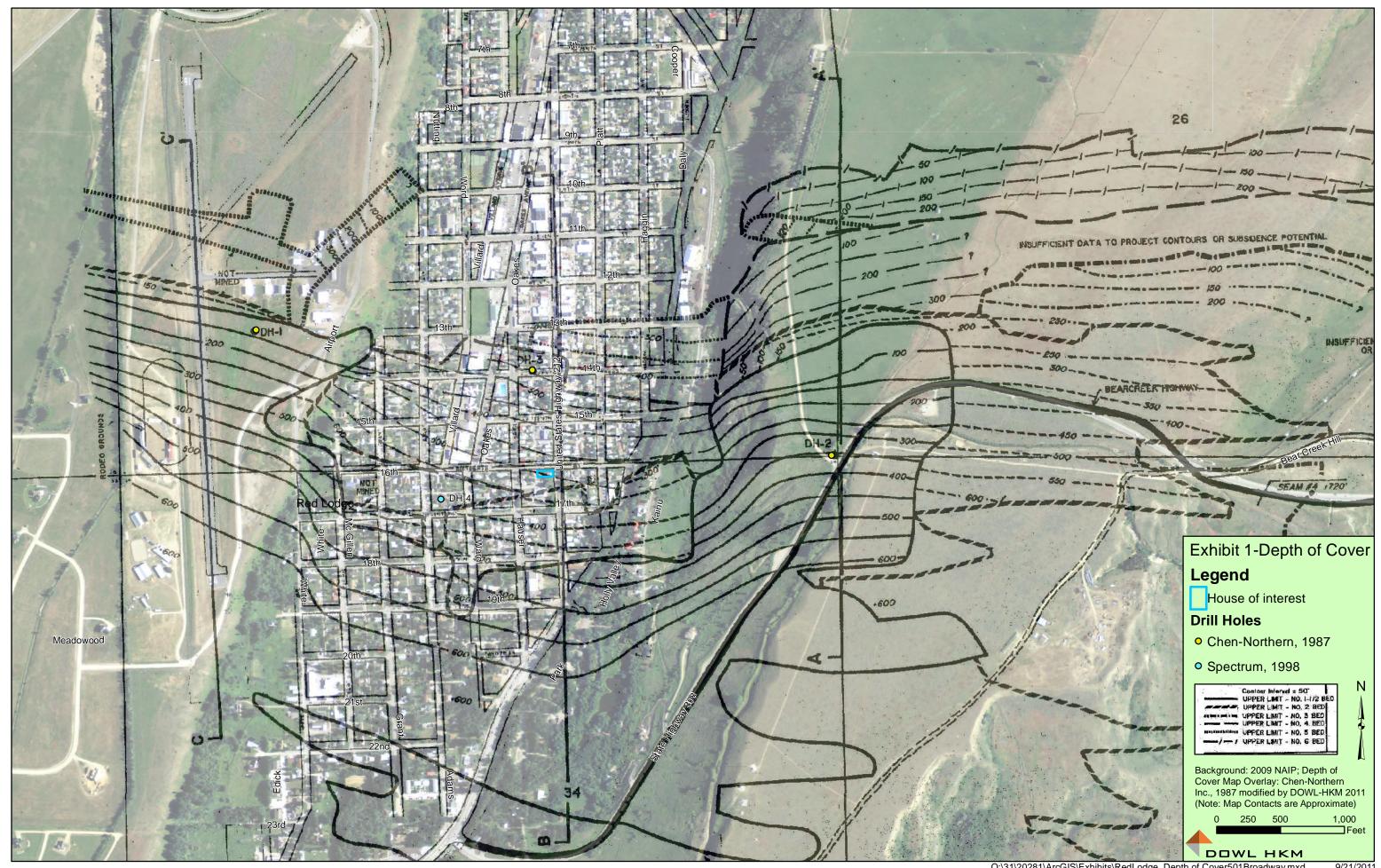


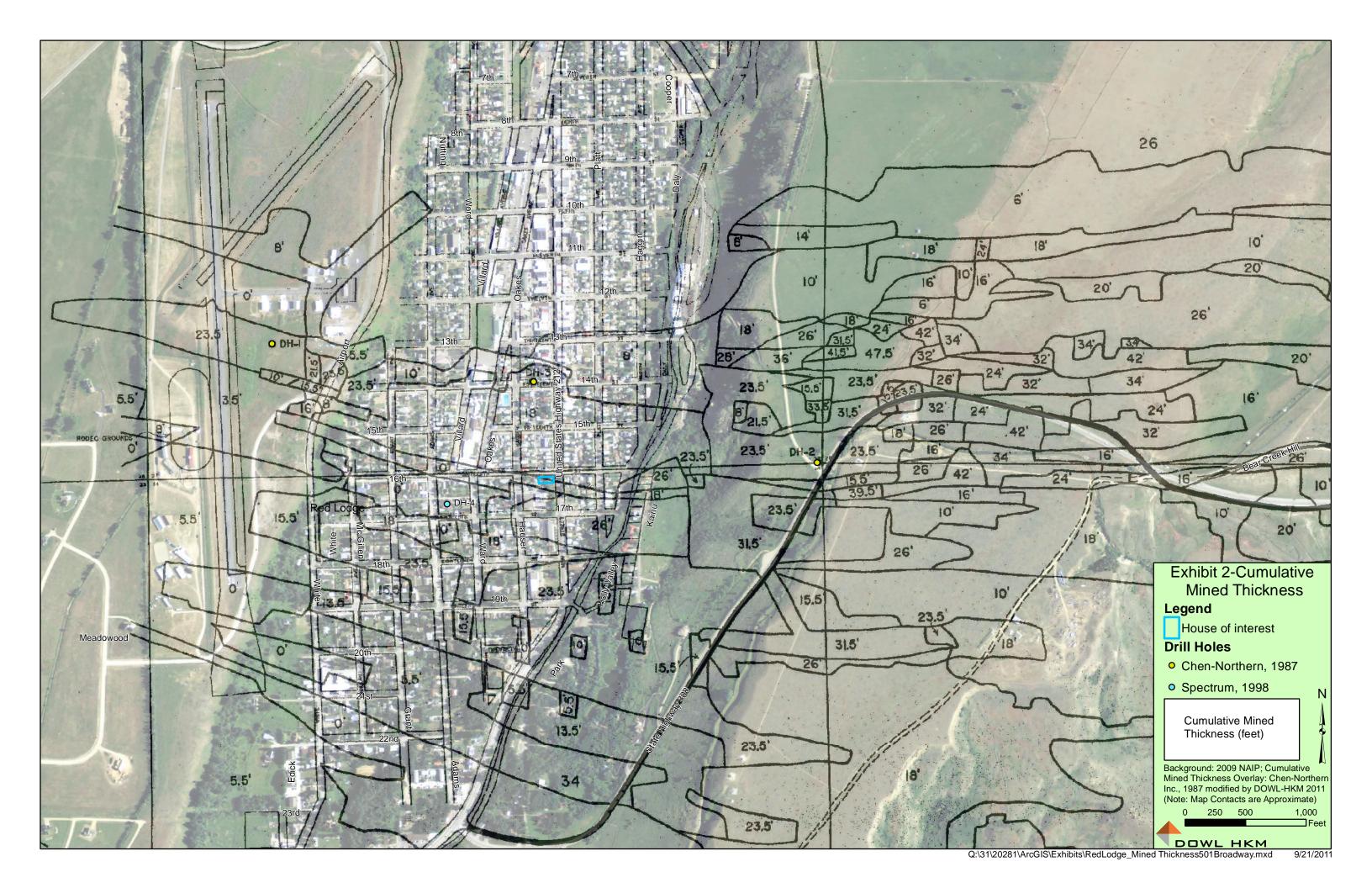




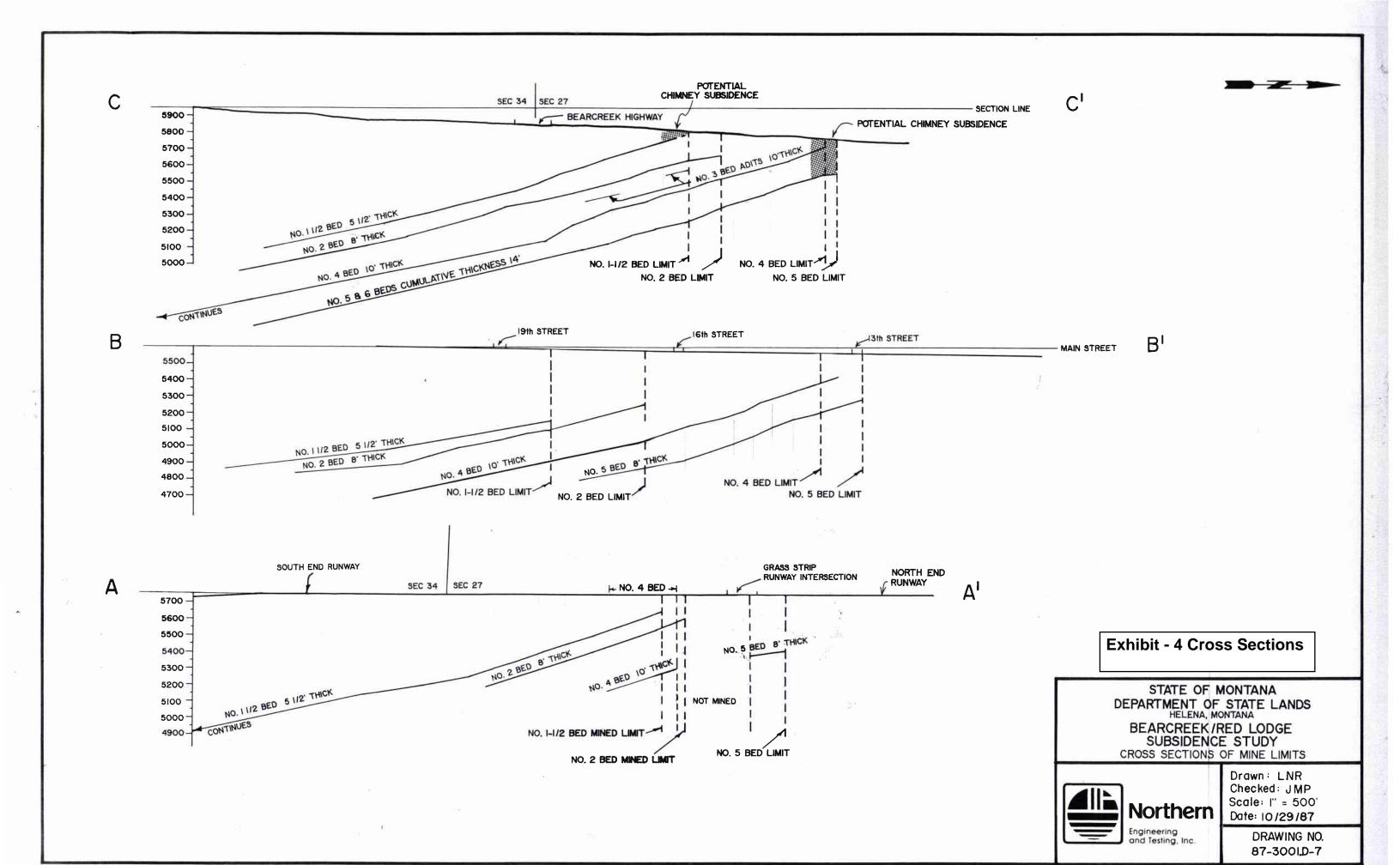


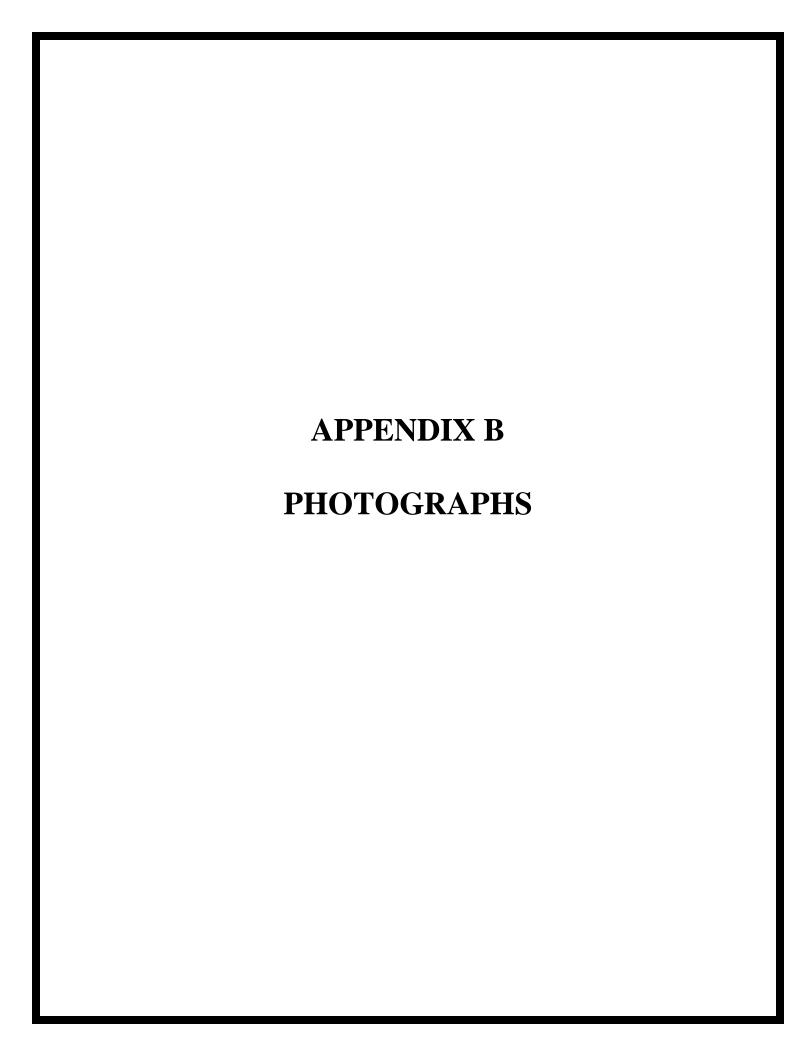














8/25/2011 12:30:19 PM View South of Sidewalk 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 12-30-19 - 0089.JPG



8/25/2011 12:30:49 PM View South of Sidewalk 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 12-30-49 - 0091.JPG



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View South of Sidewalk - Crack is Open to a Depth of 4 Inches
501 Broadway Avenue South, Red Lodge, MT
2011-08-25 12-30-32 - 0090.JPG



8/25/2011 12:30:55 PM View South of Sidewalk 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 12-30-55 - 0092.JPG



8/25/2011 12:31:03 PM View South of Sidewalk 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 12-31-03 - 0093.JPG



8/25/2011 12:32:00 PM View West of Front of House 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 12-32-00 - 0095.JPG



View South of Front Stairs - Note Open Crack Between the Stairs and Foundation 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 12-31-35 - 0094.JPG



View Northwest of South Side of Front Stairs - Note Open Crack Between the Stairs and Foundation 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 12-32-24 - 0096.JPG



View Southeast of North Foundation and Open Crack 7 in Stucco Where the Front Addition and Main House Foundation Meet

501 Broadway Avenue South, Red Lodge, MT



8/25/2011 12:57:16 PM View South of Front Stairs and Crack in Walkway 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 12-57-16 - 0099.JPG



View South of Front Stairs - Note Open Crack Between the Stairs and Foundation 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 12-33-47 - 0098.JPG



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View West of East Foundation and Hairline Crack 1 near Southeast Corner of House
501 Broadway Avenue South, Red Lodge, MT
2011-08-25 12-57-55 - 0100.JPG



View West of East Foundation and Hairline Crack 1 near Southeast Corner of House 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 12-58-39 - 0101.JPG



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View North of South Foundation and Buckled Stucco and Hairline Crack 3
501 Broadway Avenue South, Red Lodge, MT
2011-08-25 13-00-21 - 0103.JPG



View North of South Foundation and Hairline Crack 2 at Front Addition 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 12-59-16 - 0102.JPG



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View North of South Foundation and Hairline Crack 4 at Back Addition
501 Broadway Avenue South, Red Lodge, MT
2011-08-25 13-00-30 - 0104.JPG



8/25/2011 1:01:16 PM
View East of West Foundation and Crack 5 in CMU Block
501 Broadway Avenue South, Red Lodge, MT
2011-08-25 13-01-16 - 0105.JPG



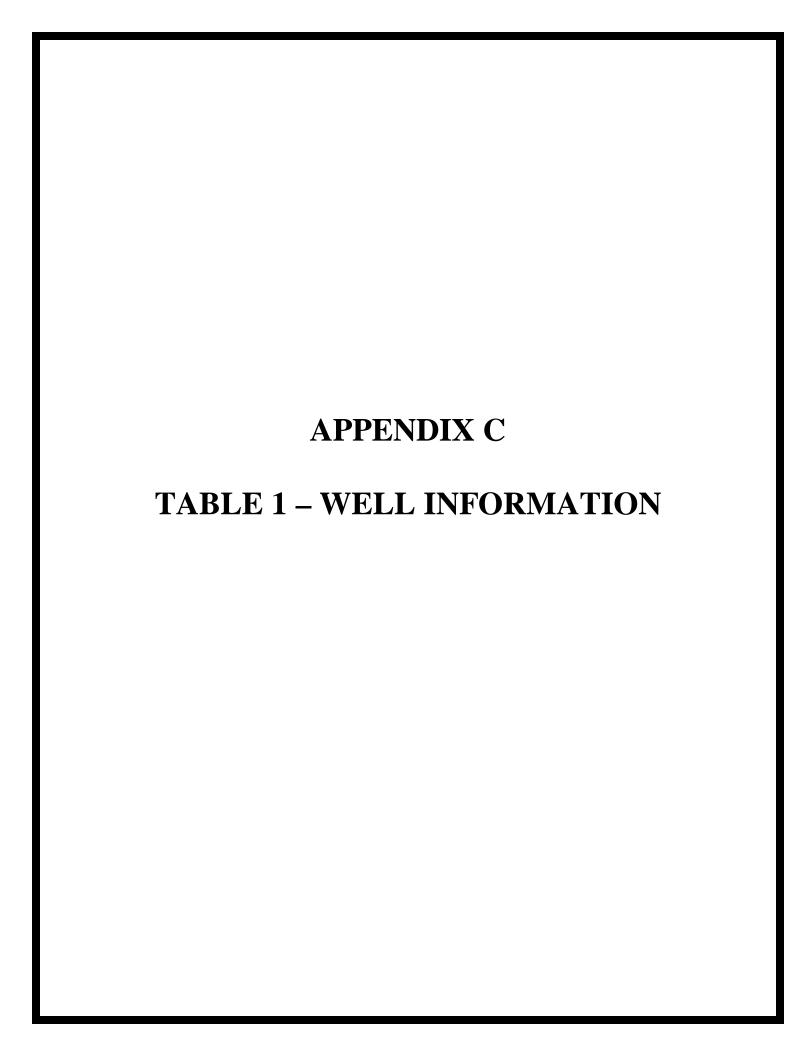
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View South of North Foundation and Paint Peeling or Possible Cracking in CMU Block
501 Broadway Avenue South, Red Lodge, MT
2011-08-25 13-02-54 - 0107.JPG



View East of West Foundation and Paint Peeling or Possible Cracking in CMU Block 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 13-01-41 - 0106.JPG



View South of North Foundation and Hairline Crack 6 at Back Addition 501 Broadway Avenue South, Red Lodge, MT 2011-08-25 13-03-05 - 0108.JPG



# Table 1 - Well Information

										DNRC					Static	Depth	Pumping				Recovery				Depth to
OBJECT	GWIC			Geometho	d Datum				Quarter	Water			Primary	Total	Water	Water	Water	Test	Test	Drillstem	Water	Recovery		Date	Bedrock
ID	ID	Latitude	Longitude	LatLon	LatLon	Township	Range	Section	Sections Site Type	Right	Site Name	Altitude	Aquifer	Depth	Level	Enters	Level	Yield Type	Hours	Setting	Level	Time	<b>Drilling Company</b>	Completed Well Use	(feet)
2	104754	45.19122	-109.242207	TRS-SEC	NAD83	7S	20E	27	AD WELL	0	BEAR CREEK LAND	0		101	48	75	48	5 BAILER	1				TOLAND	1/1/1979 DOMESTIC	28
	104737		-109.250401		NAD83	<b>7</b> S	20E	27	WELL		LOUMA BEN	0		60	13		48	15 BAILER	1				B & H	1/1/1960 DOMESTIC	18
4	104817		-109.251521		NAD83	<b>7</b> S	20E	34	BDD WELL		NOE JAMES A.	0		38	9	38	0	50 AIR	1				MURPHY	6/23/1988 IRRIGATION	>40
	104806	45.17459	-109.250144	TRS-SEC	NAD83	7S	20E	34	WELL	_	MARTIN CHUCK	0		38	11	38	38	50 AIR	1				B & H	5/5/1983 DOMESTIC	>38
											ZUMBRUN LLOYD &														
	104815		-109.252899		NAD83	7S	20E	34	BD WELL	_	GLADYS	0		30	5	30	0	50 AIR	1		5		B & H	6/2/1988 IRRIGATION	>32
8	104807	45.18027	-109.247389	TRS-SEC	NAD83	<b>7</b> S	20E	34	AB WELL	0	FOUNTAIN PARK	0		58	7	58	20	70 PUMP	2				B & H	6/2/1984 IRRIGATION	>58
١,	104013	45 17022	100 251521	TDC CEC	NADOS	70	205	24	DAD WELL	0	DECKI DANDY	0		20	10	20	20	25 AID	2				ROCK CREEK	4 /0 /4 00F DOMESTIC	. 40
	104812 128248		-109.251521 -109.252899		NAD83 NAD83	7S 7S	20E 20E	34	BAD WELL BD WELL	_	WILLIAMS DONALD E.	0		39 38	18 18	39 38	38 35	25 AIR 35 AIR	1		18		DRILLING INC B & H	4/9/1985 DOMESTIC 6/11/1992 IRRIGATION	>40 >40
-	144954		-109.252899		NAD83	7S	20E	34	BD WELL		HAUGE LEE	0		35	15	33	30	35 AIR	1		15		<u>в &amp; н</u>	6/15/1992 IRRIGATION	>35
	104740		-109.250401		NAD83	7S	20E	27	WELL		WYER STEPHEN C	0		86	25		75	6 BAILER	2		13		B & H	1/1/1971 DOMESTIC	20
	144255		-109.244939		NAD83	7S	20E	27	A WELL		RED LODGE LIONS CLUB	0		38	0	38	35	35 AIR	1				B & H	6/19/1992 IRRIGATION	>38
	104816		-109.252899		NAD83	7S	20E	34	BD WELL		SPENCER VER	0		38	8	38	35	50 AIR	1				B & H	5/14/1987 IRRIGATION	>38
	124992		-109.252899		NAD83	7S	20E	34	BD WELL		KLESSONS DAVE	0		40	6	38	36	40 AIR	1		6		B & H	10/9/1990 IRRIGATION	>40
	149927		-109.247389		NAD83	7S	20E	34	AB WELL	0	NORBY H. LEE	0		80	10	50	75	20 AIR	2.5		10		B & H	10/29/1993 DOMESTIC	17
28	104750	45.1931	-109.244939	TRS-SEC	NAD83	7S	20E	27	A WELL	0	ANDERSON DAVID B.	0		39	7	39	0	50 OTHER	0				B & H	1/1/1982 DOMESTIC	>39
32	104763	45.19034	-109.246741	SUR-GPS	NAD83	7S	20E	27	ACCA WELL	0	ADAMS JOEL	5544	112SNGR	38	13	38	35	50 AIR	1				B & H	1/1/1985 DOMESTIC	>38
33	104736	45.18934	-109.250401	TRS-SEC	NAD83	7S	20E	27	WELL	0	TRUNER JESS	0		75	26	58	65	6 BAILER	2				B & H	1/1/1964 DOMESTIC	26
34	104741	45.18934	-109.250401	TRS-SEC	NAD83	<b>7</b> S	20E	27	WELL	0	CITY OF RED LODGE	0		74	0	0	0	0 OTHER	0					1/1/1961 DOMESTIC	70
36	104766	45.18276	-109.249036	TRS-SEC	NAD83	7S	20E	27	DCC WELL	0	LOCKRIDGE DORIS M.	0		38	9	38	38	50 AIR	1				B & H	1/1/1983 UNKNOWN	>38
37	104767	45.18276	-109.243573	TRS-SEC	NAD83	7S	20E	27	DDC WELL	0	LAUDON CLARENCE	0		38	6	39	38	30 OTHER	0					1/1/1982 DOMESTIC	>38
																							AAQUA DRILLING		
	164284		-109.246011		NAD83	<b>7</b> S	20E	34	ABA WELL		JARVI CLARA T.	0		25	6	25	0	6 AIR	1		6	0.16		8/5/1997 IRRIGATION	>25
-	104808		-109.246011		NAD83	7S	20E	34	ABA WELL	-	AMUNDSON DUKE	0	125FRUN	45	17	25	25	17 BAILER					B & H	9/13/1974 DOMESTIC	16
	104809		-109.246011		NAD83	7S	20E	34	ABA WELL		SCHUBERT JACK	0		110	10	0	100	10 BAILER	2				STILLWATER	9/7/1984 DOMESTIC	14
43	142744	45.18027	-109.252899	TRS-SEC	NAD83	7S	20E	34	BA WELL	0	JUDD DAVE	0		38	19	38	35	50 AIR	2		19	0.5	B & H	12/30/1993 IRRIGATION	>40
	176202	45 47022	100 25 4276	TDC CEC	NADOS	70	205	24	DAC WELL	0	THORMATTLEN WALLACE	0		40	1.4	40	20	20 AID	1		1.4	0.03	DOLLCI AS DRILLING	0 /F /4000 IDDICATION	. 40
42	1/6392	45.17932	-109.254276	TRS-SEC	NAD83	<b>7</b> S	20E	34	BAC WELL	U	THURIVIATTLEN WALLACE	U		40	14	40	38	30 AIR	1		14		DOUGLAS DRILLING  AAQUA DRILLING	8/5/1999 IRRIGATION	>40
/1	189170	/IS 19122	-109.251521	TDC_CEC	NAD83	7S	20E	34	BAA WELL	0	BREMER DARREH	0		39	21	39	0	40 AIR	1	39	21	0.16		5/17/2001 DOMESTIC	>40
	104805		-109.250144		NAD83	7S	20E	34	WELL	_	CASTOGNE VIC	0		38	9	38	38	50 AIR	1	33	21		B & H	5/6/1983 UNKNOWN	>38
			-109.248766		NAD83	7S	20E	34	ABB WELL		LAMPI HUGO	0		39	12		38	100 AIR	2				B & H	1/15/1983 DOMESTIC	>39
-	104010	45.10122	103.240700	THO SEC	147.000	73	201	3-	ADD WELL		FRONTIER COMMUNITIES			33	12	33	30	100 / (())					Dan	1/13/1303 DOMESTIC	
50	144956	45.17648	-109.252899	TRS-SEC	NAD83	<b>7</b> S	20E	34	BD WELL		INC.	0		33	13	33	30	50 AIR	1		13	1	B & H	8/27/1992 IRRIGATION	>35
		10121010								_	FRONTIER COMMUNITIES											_		3/21/2002	
51	144958	45.17648	-109.252899	TRS-SEC	NAD83	7S	20E	34	BD WELL		INC.	0		37	13	37	35	50 AIR	1		13	1	B & H	8/27/1992 IRRIGATION	>37
52	122491	45.1837	-109.24767	TRS-SEC	NAD83	7S	20E	27	DC WELL	60328	ANDERSON GEORGE	0		39	20	39	35	30 AIR	1				B & H	5/31/1985 IRRIGATION	
54	104739	45.18934	-109.250401	TRS-SEC	NAD83	7S	20E	27	WELL	0	PITCHER BOB	0		98	48		80	8 OTHER	0					1/1/1972 DOMESTIC	22
55	104753	45.19122	-109.242207	TRS-SEC	NAD83	7S	20E	27	AD WELL	0	PALMER BILL BEAR CK	0		101	35	80	70	50 BAILER	2				TOLAND	1/1/1979 DOMESTIC	25
56	124989	45.18558	-109.244939	TRS-SEC	NAD83	7S	20E	27	D WELL	0	RILEY MRS. JACK	0		60	17	40	55	15 AIR	1		17	1	B & H	8/6/1991 IRRIGATION	9
57	124991	45.18746	-109.24767	TRS-SEC	NAD83	<b>7</b> S	20E	27	DB WELL	0	MALLIN RICHARD	0		30	15	28	25	50 AIR	1		15	1	B & H	8/7/1991 IRRIGATION	>30
58	131624	45.18746	-109.24767	TRS-SEC	NAD83	7S	20E	27	DB WELL	0	HOINES EVERETT	0		40	9	38	37	50 AIR	1				B & H	6/6/1986 IRRIGATION	>40
59	201872	45.17648	-109.252899	TRS-SEC	NAD83	<b>7</b> S	20E	34	BD WELL	0	LUOMA OLIVER	0		40	6	40	0	90 AIR	1.5	39	6	0.05	DOUGLAS DRILLING	7/10/2002 IRRIGATION	>40
60	196856	45.18793	-109.251084	TRS-SEC	NAD83	<b>7</b> S	20E	27	CAAD WELL	0	TRUE VALUE (KEN)	0		40	21	40	0	60 AIR	1.5	39	21	0.03	DOUGLAS DRILLING	3/27/2002 IRRIGATION	>40
											ODOLID DEGIC							20		2.0		0.00		- /	
61	196859	45.18276	-109.251767	TRS-SEC	NAD83	7S	20E	27	CDD WELL	0	GROUP REGIS	0		40	2	40	0	80 AIR	1.5	39	2	0.03	DOUGLAS DRILLING	5/14/2002 IRRIGATION	>40
	250404	45 40007	100 252000	TDC CCC	NADOS	70	205	2.4	DA 14/511	_	CDANT CLICAN			40	4.3	40	^	40 410		40	4.2	0.00	DOLLCI AC DRILLING	0/2/2000 IDDICATION	. 40
63	258484	45.1802/	-109.252898	IKS-SEC	NAD83	<b>7</b> S	20E	34	BA WELL	U	GRANT SUSAN	U		40	12	40	0	40 AIR	2	40	12		DOUGLAS DRILLING	9/2/2009 IRRIGATION	>40
	164292	AE 10020	100 246204	TDC CEC	NADOS	70	205	27	ACD WELL	102170	DAVEA CEDVI DIVIL I	0		20	12	20	0	12 410	1				AAQUA DRILLING	0/26/1007 IDDICATION	> 20
			-109.246304 -109.251521		NAD83 NAD83	7S 7S	20E 20E	27 34	ACD WELL BDA WELL		DAVEY GERALDINE L KLEPICH GEORGE	0		28 39	12		35	12 AIR 50 AIR	1				B & H	9/26/1997 IRRIGATION 5/24/1985 DOMESTIC	>29 >40
			-109.251521		NAD83	7S 7S	20E	27	AD WELL		MARVIN MARY	0		38	13	38	35		1		E		в & н В & Н	8/22/1991 IRRIGATION	
	144130	43.13122	103.242207	INJSLC	IVADOS	/3	ZUL	21	AD METT	U	INIMIN INIMIN I	U		30	O	30	33	20 AIV	1		0	0.5	ואטע	OJ ZZJ 1991 IRRIGATION	/30

# Table 1 - Well Information

<b>67</b> 161385	45.17932	-109.254276 TRS-SEC	NAD83	7S	20E	34	BAC WELL	0 WISE JEFF	0	40	25	32	35	15 PUMP	1			В & Н	8/21/1996 DOMESTIC	44
																		AAQUA DRILLING		
<b>68</b> 173022	45.18122	-109.246011 TRS-SEC	NAD83	7S	20E	34	ABA WELL	0 BROWN VERNETTA	0	25	7	25	0	60 AIR	0		7	0.2 INC	8/6/1996 IRRIGATION	>25
<b>69</b> 239572	4F 10122	100 246011 TDC CCC	NAD83	70	20E	34	ABA WELL	COLT COMMUNICATIONS 0 L.L.P.		40	6	39	0	75 AIR	1	39	6	AAQUA DRILLING 0.08 INC	8/8/2007 DOMESTIC	>40
69 239372	45.18122	-109.246011 TRS-SEC	INAD83	7S	ZUE	34	ABA WELL	U L.L.P.	U	40	O	39	U	75 AIK	1	39	0	0.08 INC	PUBLIC	>40
																		AAQUA DRILLING	WATER	
<b>70</b> 247582	45.19592	-109.243573 TRS-SEC	NAD83	<b>7</b> S	20E	27	AAB WELL	0 CITY OF RED LODGE	0	49	21	49	0	80 AIR	1	50	21	5 INC	7/14/2008 SUPPLY	>49
																			MONITORIN	
<b>75</b> 189953	45.1884	-109.249036 TRS-SEC	NAD83	<b>7</b> S	20E	27	DBB WELL	0 RAY JUDD FORD INC	0	20	15	10	0	0 OTHER	0			B & H	4/26/2001 G	>20
<b>76</b> 126442	4E 17742	-109.248766 TRS-SEC	NAD83	<b>7</b> S	20E	34	ACB WELL	0 WHITTEN R.P.	0	28	11	20	28	20 AIR	1		11	ROCK CREEK 0.1 DRILLING INC	10/4/1991 DOMESTIC	>28
		-109.243573 TRS-SEC	NAD83	7S	20E	27	DAC PETWELL	0 DIAMOND DRILL -2	0	0	11	28	0	0	0		11	0.1 DRILLING INC	10/4/1991 DOMESTIC	Unk
76 523626	.5.12052	10312103701110020	1	,,,			2710 12111222													
<b>79</b> 243803	45.19122	-109.24767 TRS-SEC	NAD83	<b>7</b> S	20E	27	AC WELL	0 O'NIEL GREG	0	60	30	22	0	10 AIR	1	60	30	0.07 DOUGLAS DRILLING	12/5/2007 UNKNOWN	50
																		AAQUA DRILLING		
		-109.246011 TRS-SEC	NAD83	7S	20E	34	ABA WELL	0 MOUNTAIN LOG Y SEDOR	0		14.5	38	0	11 AIR	1	50	4.4	0.17 INC	5/27/2000 DOMESTIC	14
<b>81</b> 192991	45.17932	-109.251521 TRS-SEC	NAD83	7S	20E	34	BAD WELL	0 EDWARDS KEITH	U	38	14	38	U	100 AIR	2	34	14	0.25 B AND H	6/15/2001 IRRIGATION	>40
<b>83</b> 214190	45.17648	-109.252899 TRS-SEC	NAD83	<b>7</b> S	20E	34	BD WELL	0 DOWNING GALE	0	40	6	40	0	60 AIR	1.5	40	6	0.03 DOUGLAS DRILLING	7/23/2002 IRRIGATION	>40
<b>85</b> 243804	45.17648	-109.252899 TRS-SEC	NAD83	<b>7</b> S	20E	34	BD WELL	0 KYNER JAMES	0	40	8	40	0	20 AIR	1	40	8	0.05 DOUGLAS DRILLING	8/25/2006 IRRIGATION	>40
<b>87</b> 155408	4E 10122	-109.254276 TRS-SEC	NAD83	<b>7</b> S	20E	34	BAB WELL	HUDAK EXCAVATION & 0 CONSTRUCTION	0	180	57	80	175	8 AIR	1.5		57	1 B & H	4/1/1996 DOMESTIC	53
67 133408	45.16122	-109.234276 TK3-3EC	INADOS	/3	200	34	BAB WELL	U CONSTRUCTION	0	160	37	80	1/3	o Ain	1.5		37	IBQN	4/1/1990 DOMESTIC	55
								RED LODGE SCHOOL										AMERICAN		
<b>88</b> 157948	45.18934	-109.250401 TRS-SEC	NAD83	7S	20E	27	WELL	0 DISTRICT NO 1	0	60	0	0	0	0 OTHER	0			DRILLING & SUPPLY	8/14/1996	>60
								CLARKS BUS SERVICE											MONITORIN	
<b>89</b> 219745	45.18027	-109.247389 TRS-SEC	NAD83	7S	20E	34	AB WELL	0 *WELL 2  RED LODGE SCHOOL	0	8	5	0	0	0 OTHER	0			DOUGLAS DRILLING	6/2/2005 G	>8
<b>90</b> 104764	45.1837	-109.24767 TRS-SEC	NAD83	7S	20E	27	DC WELL	0 DISTRICT NO 1	0	60	22	59	40	90 PUMP	8			В & Н	1/1/1983 IRRIGATION	>60
																		AAQUA DRILLING	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
<b>92</b> 164285	45.18122	-109.251521 TRS-SEC	NAD83	<b>7</b> S	20E	34	BAA WELL	0 TIMONEN SIGRID S.	0	24	6	24	0	40 AIR	1		6	0.16 INC	8/5/1997 IRRIGATION	>24
<b>94</b> 223129	4F 10746	-109.24767 TRS-SEC	NAD83	70	20E	27	DD WELL	O SALLADE CHARLES		40	26	40	0	30 AIR	2	40	26	0.1 DOUGLAS DRILLING	11/22/2005 IDDICATION	> 40
94 223129	45.18/40	-109.24767 TK3-SEC	INAD83	7S	ZUE	27	DB WELL	0 SALLADE CHARLES	U	40	26	40	U	30 AIK	2	40	26	0.1 DOUGLAS DRILLING	11/22/2005 IRRIGATION	>40
<b>95</b> 201857	45.1837	-109.24767 TRS-SEC	NAD83	<b>7</b> S	20E	27	DC WELL	0 RONNING TRACY	0	40	6	20	0	40 AIR	1.5	39	6	0.02 DOUGLAS DRILLING	12/6/2002 IRRIGATION	35
																		ROCK CREEK		
<b>98</b> 128247	45.18122	-109.248766 TRS-SEC	NAD83	7S	20E	34	ABB WELL	0 SLANTZ RUSSELL	0	28.5	11	28	28	30 AIR	1		11.5	0.1 DRILLING INC	10/7/1991 DOMESTIC	>28.5
100 210742	1E 171E0	-109.250144 TRS-SEC	NAD83	70	20E	34	WELL	0 LEFEBVRE JOE	0	40	0	40	0	60 AIR	1.5	40		2 DOUGLAS DRILLING	6/2/2005 IRRIGATION	>40
100 219742	45.17459	-109.230144 TK3-3EC	INADOS	7S	200	34	VVELL	RED LODGE SCHOOL	0	40	U	40	U	OU AIN	1.5	40		2 DOUGLAS DRILLING	0/2/2003 IRRIGATION	>40
<b>101</b> 158424	45.18464	-109.251767 TRS-SEC	NAD83	<b>7</b> S	20E	27	CDA WELL	0 DISTRICT	0	58	20	0	55	50 AIR	2		20	0.5 B & H	8/23/1996 IRRIGATION	>60
<b>102</b> 243777	45.1837	-109.24767 TRS-SEC	NAD83	<b>7</b> S	20E	27	DC WELL	0 JORDEN LINDA	0	37	10	20	0	30 AIR	1	37	10	0.03 DOUGLAS DRILLING	3/31/2008 IRRIGATION	35
104 197201	/E 17022	-109.254276 TRS-SEC	NAD83	<b>7</b> S	20E	34	BAC WELL	MARCHELLO GUIDO/ 0 MARY	0	33	14	33	33	30 AIR	0		12	0.03 DOUGLAS DRILLING	8/11/1999 IRRIGATION	>33
		-109.254276 TRS-SEC	NAD83	75 7S	20E	34	BAB WELL	0 PILATI MICHAEL	0	38	17	38	35	40 AIR	1		17	0.5 B & H	10/1/1996 IRRIGATION	>40
																			.,,	
<b>107</b> 211966	45.18746	-109.24767 TRS-SEC	NAD83	7S	20E	27	DB WELL	0 BERTRAM KELLY	0	40	22	0	0	60 OTHER	1	40	22	0.2 DOUGLAS DRILLING	5/3/2004 DOMESTIC	>40
100 242770	4F 4027	100 24767 TDC 656	NADOS	70	205	27	DC WELL	O IOBDAN LINDA		40	4.5	20		20 AID	4	40	4.5	0 03 DOUGLAS DRILLING	2/24/2000 IDDICATION	4.5
<b>108</b> 243779	45.1837 45 17932	-109.24767 TRS-SEC -109.251521 TRS-SEC	NAD83 NAD83	7S 7S	20E 20E	27 34	DC WELL BAD WELL	0 JORDAN LINDA 0 JAQUITH PHILLIP	0	40	15 20	20 0	0	20 AIR 50 AIR	1	40 36	15 20	0.03 DOUGLAS DRILLING 0.25 B AND H	3/31/2008   IRRIGATION   5/14/2004   IRRIGATION	15 >40
222 212130	.5.17.552	103.231321 110 320		,,,	202	34	J. IJ WELL	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		70	20		U	33 / 1111	-	30	20	5.25	5/11/2004   11/10/11/01/1	740
<b>112</b> 201873	45.17648	-109.252899 TRS-SEC	NAD83	7S	20E	34	BD WELL	0 NEARPASS BAYARD	0	40	6	40	0	40 AIR	1.5	39	6	0.03 DOUGLAS DRILLING	7/9/2002 IRRIGATION	>40
											T									
<b>113</b> 219749	45.18027	-109.247389 TRS-SEC	NAD83	7S	20E	34	AB WELL	0 FINSTAD ERIC *PILATI MIKE	0	40	0	40	0	38 AIR	1.5	36		DOUGLAS DRILLING	6/5/2005 IRRIGATION	>40

# Table 1 - Well Information

14 PATES   1,177-9   1,177																					
14 12315 45,774 190.3151,715 57 NACCO 75 NACCO 7	<b>11/</b> 2510/	12 /E 10	27 100 24767 TPS SEC	NIV D83	70	205	27	DC WELL	O SCHIIDEDT DIANA	0	40	12	20	0	25 AID	1	40	12	0 03 DOLICE VE DBILLING	4/9/2009 IDDICATION	202
143   145	114 25194	43.16.	-109.24/0/ TN3-3EC	INADOS	/3	200	21	DC WELL	U SCHUBERT DIANA	U	40	12	20	U	25 AIN	1	40	12		4/6/2006 IRRIGATION	301
177 [Part   Part   Part	<b>116</b> 22219	95 45 177	13 -109 251521 TRS-SEC	NAD83	75	20F	34	BDA WELL	0 MEIER RYAN AND IONI	0	77	41	57	0	20 AIR	1	77	41	•	8/8/2005 DOMESTIC	62?
131   1932   1934   1944   1945   194		101277	1031231311 1110 010	10.000		202		327, 1722			7.		0.		20 /	-			0.00	5, 5, 2005	02.
March   Marc	<b>117</b> 25847	70 45.176	18 -109.252898 TRS-SEC	NAD83	7S	20E	34	BD WELL	0 BRYNGELSON MARY	0	40	6	40	0	40 AIR	1.5	40	6	0.03 DOUGLAS DRILLING	7/29/2009 IRRIGATION	>40
135 1550	<b>118</b> 12499	93 45.177	13 -109.251521 TRS-SEC	NAD83	7S	20E	34	BDA WELL	0 FORMANACK ROBERT W.	0	39	12	39	38	50 AIR	1			B & H	1/20/1983 DOMESTIC	>39
19   19   19   19   19   19   19   19	<b>124</b> 15842	25 45.179	32 -109.254276 TRS-SEC	NAD83	<b>7</b> S	20E	34	BAC WELL		0	38	27	38	30	18 AIR	1			B & H	9/23/1996 DOMESTIC	40
23   15   15   15   15   15   15   15   1	<b>125</b> 15842	26 45.179	32 -109.251521 TRS-SEC	NAD83	7S	20E	34	BAD WELL	0 THOKE WILLIAM P.	0	38	16	38	35	40 AIR	1		16	0.5 B & H	10/1/1996 IRRIGATION	>40
100   127-00   45-1879   4																			AAQUA DRILLING		
132 12-7570   4-1-1752   1-1-1752   1-1-1752   1-1-1752   1-1752   1-1-1752   1-1-1752   1-1-1752   1-1-1752   1-1-1752   1-1752   1-1-1752   1-1-1752   1-1-1752   1-1-1752   1-1-1752   1-1752   1-1	<b>129</b> 25352	45.182	12 -109.24908 NAV-GPS	NAD83	7S	20E	27	DCC WELL	0 GREER RICK	0	40	18	0	0	50 AIR	1	39	18		10/20/2009 GEOTECH	>39
2 22-07 S						• • •		55	0 1/44/5 144/456			•								- /o- / o DON 456T10	
122   STATE   ASTRONOM   STATE	<b>130</b> 12249	45.187	16 -109.24/6/ TRS-SEC	NAD83	/5	20E	27	DB WELL		U	35	20	35	0	25 AIR	1				5/2//19// DOMESTIC	>35
137 241499	1 <b>22</b> 12267	72 /5 101	100 254276 TPS SEC	NVD63	75	205	24	DAD WELL		0	20	10	20	20	25 AID	1		10		0/1/1002 IRRIGATION	>20
139 21599 45.1794 199.25399 175-55C NOB9 75 2C 34 BO WILL O SUBBLEOMEACE 0 40 23 0 0 55 NB 15 40 23 0.000000 270 00000000 270 0000000000000							_		* ** **	0						1					
182 2155-76 45.1567 109.249589 175.35C NAISS 75 30F 32 30 44 AL WHILE S SOMMERICADATHONY 0 161 10 20 0 20 Am 1 1 10 DS DOUGLAS SPRING 177/2000 DOMESTIC 15 19 22508 45.1567 109.24950 175.55C NAISS 75 30F 77 DOWNIL 0 MIGHAL 8HP 0 19 0 18 0 30 Am 1 1 26 0 0.00 MICH SHIPM 1 26 0 0.00 MICH SHIPM 1 1 26 0.00 MICH SHIPM 1 1 26 0 0.00 MICH SHIPM 1 1 26	155 14414	43.131.	103.242207 113 320	IVADOS	/3	201	27	AD WELL	O THATEK BETT	0	30	1-7	20	23	40 AII			17	10011	6/3/1331 MMG/MON	730
182 2155-76 45.1567 109.249589 175.35C NAISS 75 30F 32 30 44 AL WHILE S SOMMERICADATHONY 0 161 10 20 0 20 Am 1 1 10 DS DOUGLAS SPRING 177/2000 DOMESTIC 15 19 22508 45.1567 109.24950 175.55C NAISS 75 30F 77 DOWNIL 0 MIGHAL 8HP 0 19 0 18 0 30 Am 1 1 26 0 0.00 MICH SHIPM 1 26 0 0.00 MICH SHIPM 1 1 26 0.00 MICH SHIPM 1 1 26 0 0.00 MICH SHIPM 1 1 26	<b>137</b> 21199	45.176	-109.252899 TRS-SEC	NAD83	<b>7</b> S	20E	34	BD WELL	0 GRIBBLE KANDACE	0	40	23	0	0	45 AIR	1.5	40	23	0.2 DOUGLAS DRILLING	4/7/2004 IRRIGATION	>40
38 22680 5.51275 69926530 TR5-SEC MAG8 75 20E 27 DCC WELL O MICHAELEPE 0 15 9 15 0 30 RR 1 18 5 0.08 RC 571,2000 DMSTIC 187  440 20700 6.51765 10.05250 NVGSP5 NVGS																				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
139   2   2   2   2   2   2   2   2   2	<b>138</b> 21652	45.180	-109.247389 TRS-SEC	NAD83	<b>7</b> S	20E	34	AB WELL	0 SOMMERFELD ANTHONY	0	60	10	20	0	20 AIR	1.5	60	10	0.03 DOUGLAS DRILLING	11/2/2004 DOMESTIC	15
140   132990   45,1786   -109   253   NAV-C95   NAC27   75   201   34   8AB WILL   0   WESTER MIRE AND NANCY   0   38   12   38   0   300   AIR   2   38   14   0.25   8AB WILL   0   WESTER MIRE AND NANCY   0   48   29   48   0   36   AIR   2   24   29   0.15   8AB WILL   0   WESTER MIRE AND NANCY   0   23   10   32   0.35   AB WILL   0   WESTER MIRE AND NANCY   46   22   48   29   48   0   36   AIR   2   24   29   0.15   8AB WILL   0   WESTER MIRE AND NANCY   46   22   48   29   48   0   36   AIR   2   24   29   0.15   8AB WILL   0   WESTER MIRE AND NANCY   46   22   23   24   29   25   6AB WILL   0   WESTER MIRE AND NANCY   46   22   23   24   29   25   6AB WILL   0   WESTER MIRE AND NANCY   46   22   23   24   29   25   6AB WILL   0   WESTER MIRE AND NANCY   46   22   23   24   29   25   6AB WILL   0   WESTER MIRE AND NANCY   46   22   23   24   29   25   6AB WILL   0   WESTER MIRE AND NANCY   46   22   23   24   29   25   6AB WILL   0   WESTER MIRE AND NANCY   46   22   23   24   29   25   6AB WILL   0   WESTER MIRE AND NANCY   46   22   23   24   29   25   6AB WILL   0   WESTER MIRE AND NANCY   46   22   23   24   29   25   6AB WILL   0   WESTER MIRE AND NANCY   46   22   23   24   29   25   6AB WILL   0   WESTER MIRE AND NANCY   46   22   23   24   25   25   6AB WILL   0   WESTER MIRE AND NANCY   47   27   28   28   28   28   28   28   2																			AAQUA DRILLING		
144   27153   45.1902   109.2543   NAV-GPS   NAV2   75   205   34   SAB-WFLL   0 WISF IFF   0   48   29   48   0   36   AR   2   44   29   0.5 RAND II 9/3/2006   RINGROM   >20   21   AR   >20   AR   >2   35   AR   2   35   AR   2   35   AR   >2   AR	<b>139</b> 22628	45.182	76 -109.246304 TRS-SEC	NAD83	<b>7</b> S	20E	27	DCD WELL	0 MICHEAL JEFF	0	19	9	18	0	30 AIR	1	18	9	0.08 INC	5/11/2006 DOMESTIC	18?
144   27153   45.1902   109.2543   NAV-GPS   NAV2   75   205   34   SAB-WFLL   0 WISF IFF   0   48   29   48   0   36   AR   2   44   29   0.5 RAND II 9/3/2006   RINGROM   >20   21   AR   >20   AR   >2   35   AR   2   35   AR   2   35   AR   >2   AR																					
142   122293   6.5.1942					7S									0		2					
148 312299										•				0		2		_			
March   Marc										- U				0		2					
144   13677   45.18   1-109.2513   MAP   NAD27   75   20E   34   BAACC WFILL   0   SOURCE STORT   0   38   9   38   0   70   MR   0   9   0.25   RA   1   32/1998   DOMESTIC   540   146   13737   45.1796   1-109.2513   NAV-GPS   NAD27   75   20E   34   BAACC WFILL   0   SWENSON RANDY   0   58   18   58   0.75   MR   0   9   0.25   RA   1   3/17/1000   BOMESTIC   540   AAUJA DRILLING   148   189172   45.1790   1-109.2513   NAV-GPS   NAD27   75   20E   34   BAACC WFILL   0   SWENSON RANDY   0   22   7   10   0.25   MR   1   22   7   0.08   INC   3/17/10/2008   BOMESTIC   3/18   1.09.241   SWENSON RANDY   0   2.00   3.0	<b>143</b> 21229	99 45.1	/6 -109.2492 NAV-GPS	NAD27	/S	20E	34	BDD WELL	0 DOUTHIT BERT	0	40	12	38	0	60 AIR	2	35	12	0.25 B AND H	· · ·	>40
144   132677									CITY OF BED LODGE WELL												
145   179024   45.1782   1.09.2481   NAV-OPS   NAD27   75   206   34   BOA   WELL   O   PARKERTERER   O   38   9   38   0   70 AIR   O   9   0.25   8 AH   9/23/1980   DOMESTIC   > 3-40   146   187237   45.1792   1.09.241   SUR-OPS   NAV-OPS   NAD27   75   206   27   DDC   WELL   O   WCHRIDT BARBHA   O   22   7   10   O   25 AIR   1   22   7   0.08   INC   7/10/2008   DOMESTIC   > 3-10   148   189172   45.1792   1.09.241   SUR-OPS   NAD27   75   206   27   DDC   WELL   O   WCHRIDT BARBHA   O   40   22   39   O   O AIR   1   36   22   1   IR AH   475/7002   IRRIGATION   > 3-0   150   244817   45.18598   1.09.24775   NAV-OPS   WGS84   75   206   27   DBC   WELL   O   PORTH ARCHITECTS   O   40   20   39   O   60 AIR   1   30   20   0.08   INC   S728/2008   DOMESTIC   > 3-40   151   244816   45.186   -109.247867   NAV-OPS   WGS84   75   206   27   DBD   WELL   O   PORTH ARCHITECTS   O   40   20   39   O   60 AIR   1   30   20   0.08   BRILLING INC   WATER   NATIONAL   WATER   WATER   NATIONAL   NATIONA	144 13267	71 /15	-109 2513 MΔP	NAD27	75	20F	3/1	BAACC WELL		0	7/1	20	0	0	900 OTHER	0					Unk
146 18737 45.1796 -109.2517 NAV-GPS NAD27 75 20E 34 BAC WILL 0 ENGERED 0 58 18 58 0 75 AR 1 56 18 6.25 B&H 12/6/2000 BRIGATION >60 147 247616 45.18328 -109.2441 SIRR-GPS NAD27 75 20E 27 DDC WELL 0 SWENSON RANDY 0 22 7 10 0 25 AR 1 22 7 0.08 INC 148 189172 45.1792 -109.2531 NAV-GPS NAD27 75 20E 34 BAC WELL 0 NCBRIDE BARBRA 0 40 22 39 0 0 0 AR 1 36 22 1 R&H 4/25/2001 BRIGATION >40 150 24481 45.1858 -109.247867 NAV-GPS WGS84 75 20E 27 DBC WILL 0 PORTHARCHITECTS 0 40 20 39 0 60 AIR 1 39 20 0.08 INC 151 244816 45.186 -109.247867 NAV-GPS WGS84 75 20E 27 DBC WELL 0 PORTHARCHITECTS 0 40 20 39 0 60 AIR 1 39 20 0.08 INC RED LODGE PUBLIC 152 247579 45.18347 -109.249333 NAV-GPS WGS84 75 20E 27 DBC WELL 0 SCHOOL 0 A40 20 39 0 60 AIR 1 39 20 0.08 INC RED LODGE PUBLIC 152 247579 45.18347 -109.249333 NAV-GPS WGS84 75 20E 27 DBC WELL 0 SCHOOL 0 A40 20 39 0 60 AIR 1 39 20 0.08 INC NATE PUBLIC 153 252187 45.18347 -109.249333 NAV-GPS WGS84 75 20E 27 DBC WELL 0 SCHOOL 0 A40 20 39 0 60 AIR 1 39 20 0.08 INC NATE PUBLIC 153 252187 45.18347 -109.249333 NAV-GPS WGS84 75 20E 27 DBC WELL 0 SCHOOL 0 A40 20 39 0 60 AIR 1 43 22 0.08 INC NATE PUBLIC 154 247579 199.251838 NAV-GPS WGS84 75 20E 27 DBC WELL 0 SCHOOL 0 A40 20 39 0 60 AIR 1 43 22 0.08 INC NATE PUBLIC 154 247579 199.251838 NAV-GPS WGS84 75 20E 27 DBC WELL 0 SCHOOL 0 A40 20 39 0 50 AIR 1 43 23 0.08 INC NATE PUBLIC 155 24643 A5.1768 1.09.247380 IRSSEC NAD83 75 20E 34 AC WELL 0 DECENSION NAD 155 24643 A5.1768 1.09.247380 IRSSEC NAD83 75 20E 34 AC WELL 0 DECENSION NAD 157 241668 A5.17783 1.09.246011 IRSSEC NAD83 75 20E 34 AC WELL 0 DECENSION NAD 157 241668 A5.17783 1.09.246011 IRSSEC NAD83 75 20E 34 AC WELL 0 DECENSION NAD 157 241668 A5.17783 1.09.246011 IRSSEC NAD83 75 20E 34 AC WELL 0 DECENSION NAD 157 241668 A5.17783 1.09.246011 IRSSEC NAD83 75 20E 34 AC WELL 0 DARWIT NATION NAD 157 241668 A5.17784 1.09.24390 NAS-GPS NAD27 75 20E 34 AC WELL 0 DARWIT NATION NAD 168 251769 45.18786 1.09.242207 IRSSEC NAD83 75 20E 34 AC WELL 0 DARWIT NATION NAD 168 251769 45.18786 1.09.242207 IRSSEC NAD										0				0		0		9	0.25 B & H		
147 247616 45 18383 -109.24415 UNR-OFS NAD27 75 20E 27 DDC WELL 0 SWENSON RANDY 0 22 7 10 0 25 AIR 1 22 7 0.08 INC 7/10/2008 DOMESTIC 13 148 B9772 45.1792 -109.2531 NAV-OFS NAD27 75 20E 34 BAC WELL 0 MCBRIDE BARBRA 0 40 22 39 0 0 AIR 1 36 22 18 AH 4/25/2001 RRIGATION >40 ACQUA DRILLING ACQU							34		0 ENGLER ED	0		18		0		1	56	18	0.25 B & H		
148 189172 45.1792 -109.2331 NAV-GPS NAD27 75 20E 34 BAC WELL 0 MCBRIDE BARBRA 0 40 22 39 0 0 AIR 1 36 22 1 B & H 4/25/2001 IRRIGATION >=0  AAQUA DRILLING AAQUA DRILLING AAQUA DRILLING AAQUA DRILLING NATER WELL 5/28/2008 DOMESTIC >=40  AAQUA DRILLING AAQUA DRILLING NATER WELL 5/28/2008 DOMESTIC >=40  PUBLIC NATER AAQUA DRILLING NATER WELL 5/28/2008 DOMESTIC >=40  PUBLIC NATER AAQUA DRILLING NATER AAQUA DRILLING AAQUA																			AAQUA DRILLING		
150 244817 45.18598 -109.24775 NAV-GPS WGS84 75 20E 27 DBC WELL 0 PORTH ARCHITECTS 0 40 20 39 0 60 AIR 1 39 20 0.08 INC 5/28/2008 DOMESTIC >40  151 244816 45.186 -109.247867 NAV-GPS WGS84 75 20E 27 DBD WELL 0 PORTH ARCHITECTS 0 40 20 39 0 60 AIR 1 39 20 0.08 DRILLING INC 5/28/2008 DOMESTIC >40  RED LODGE PUBLIC RED LODGE PUBLIC 0 SCHOOL 0 44 22 43 0 50 AIR 1 43 22 0.08 INC 8/4/2008 SUPPLY >44  AAQUA DRILLING	<b>147</b> 24761	45.183	-109.2441 SUR-GPS	NAD27	7S	20E	27	DDC WELL	0 SWENSON RANDY	0	22	7	10	0	25 AIR	1	22	7	0.08 INC	7/10/2008 DOMESTIC	13
150 244817 45.18598 -109.24775 NAV-GPS WGS84 75 20E 27 DBD WELL 0 PORTH ARCHITECTS 0 40 20 39 0 60 AIR 1 39 20 0.08 INC 5/28/2008 DOMESTIC >40  AAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAAAAAAA WATER WELL 5/28/2008 DOMESTIC >40  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	<b>148</b> 18917	72 45.17	-109.2531 NAV-GPS	NAD27	7S	20E	34	BAC WELL	0 MCBRIDE BARBRA	0	40	22	39	0	0 AIR	1	36	22		4/25/2001 IRRIGATION	>40
151 24816 45.186 -109.247867 NAV-GPS WGS84 75 20E 27 DBD WELL 0 PORTH ARCHITECTS 0 40 20 39 0 60 AIR 1 39 20 0.08 DRILLING WATER WELL 5/28/2008 DOMESTIC >40 PUBLIC RED LODGE PUBLIC RED LODGE PUBLIC SUPPLY SALE AND																					
151 244816 45.186 -109.247867 NAV-GPS WGS84 75 20E 27 DBD WELL 0 PORTH ARCHITECTS 0 40 20 39 0 60 AIR 1 39 20 0.08 DRILLING INC 5/28/2008 DOMESTIC >40 PUBLIC AAQUA DRILLING INC 5/28/2008 DOMESTIC >40 PUBLIC AAQUA DRILLING INC 5/28/2008 DOMESTIC >40 PUBLIC AAQUA DRILLING INC 8/4/2008 SUPPLY >44 AAQUA DRILLING AAQUA DRILLING AAQUA DRILLING INC 5/27/2009 DOMESTIC >43 AAQUA DRILLING INC 5/27/2009 DOMESTIC >44	<b>150</b> 24481	L7 45.185	98 -109.24775 NAV-GPS	WGS84	7S	20E	27	DBC WELL	0 PORTH ARCHITECTS	0	40	20	39	0	60 AIR	1	39	20	0.08 INC	5/28/2008 DOMESTIC	>40
151 244816 45.186 -109.247867 NAV-GPS WGS84 75 20E 27 DBD WELL 0 PORTH ARCHITECTS 0 40 20 39 0 60 AIR 1 39 20 0.08 DRILLING INC 5/28/2008 DOMESTIC >40 PUBLIC AAQUA DRILLING INC 5/28/2008 DOMESTIC >40 PUBLIC AAQUA DRILLING INC 5/28/2008 DOMESTIC >40 PUBLIC AAQUA DRILLING INC 8/4/2008 SUPPLY >44 AAQUA DRILLING AAQUA DRILLING AAQUA DRILLING INC 5/27/2009 DOMESTIC >43 AAQUA DRILLING INC 5/27/2009 DOMESTIC >44																			A A A A A A A A TED A (ELL		
152 247579 45.18347 -109.249333 NAV-GPS WGS84 75 20E 27 CDD WELL 0 SCHOOL 0 44 22 43 0 50 AIR 1 43 22 0.08 INC 8/4/2008 SUPPLY >44  AAQUA DRILLING AAQUA DRILLING AAQUA DRILLING SUPPLY >44  AAQUA DRILLING AAQUA DRILLING AAQUA DRILLING AAQUA DRILLING SUPPLY >44  153 252187 45.18257 -109.251833 NAV-GPS WGS84 75 20E 27 DDC WELL 0 AND LINDA 0 43 23 43 0 50 AIR 1 43 23 0.08 INC 5/27/2009 DOMESTIC >43  155 241643 45.17648 -109.247389 TRS-SEC NAB83 75 20E 34 AC WELL 0 DEFENDANT N. 0 10TRC 30 8 30 0 200 OTHER 0 8 8 8/1/1959 DOMESTIC >30  157 231468 45.17743 -109.246911 TRS-SEC NAB83 75 20E 34 AC WELL 0 MPPP 0 25 6 25 0 60 AIR 1 25 6 0.08 INC 9/11/2006 DOMESTIC >43  158 173023 45.1794 -109.24930 NAV-GPS NAD27 75 20E 34 AB WELL 0 MARTIN DON 0 100 14 60 18 AIR 0 14 0.05 B & 7/16/1998 DOMESTIC 16  162 124990 45.18746 -109.242207 TRS-SEC NAB83 75 20E 27 DA WELL 0 JARVI TAIMI 0 30 11 0 25 40 AIR 1 1 1 1 1 8 & H 8/12/1991 IRRIGATION >30  163 251765 45.18746 -109.242207 TRS-SEC NAB83 75 20E 27 DA WELL 0 DANE, ELIZABETH 0 40 9 40 0 30 AIR 1 64 25 0.08 INC NAQUA DRILLING NA	151 24491	16 45 1	26 100 247967 NAV CDS	WCC04	70	205	27	DDD WELL	O DORTH ARCHITECTS	0	40	20	20	0	CO AID	1	20	20		F /20 /2000 DOMESTIC	> 40
152   247579   45.18347   109.249333   NAV-GPS   WGS84   75   20E   27   CDD   WELL   0   SCHOOL   0   44   22   43   0   50   AIR   1   43   22   0.08   INC   S/27/2009   DOMESTIC   >43   52/2187   45.18257   -109.247389   TRS-SEC   NAD83   75   20E   34   AC   WELL   0   DOEDEN KATHY   0   40   10   40   0   30   AIR   1   40   10   0.03   DOUGLAS DRILLING   1/2/2008   IRRIGATION   >40   1/2   3	131 24401	45.10	-109.247607 NAV-GP3	WG364	/3	200	21	DBD WELL	0 PORTITARCHITECTS	U	40	20	39	U	60 AIK	1	39	20	0.08 DRILLING INC		740
152 247579 45.18347 -109.249333 NAV-GPS WGS84 75 20E 27 CDD WELL 0 SCHOOL 0 44 22 43 0 50 AIR 1 43 22 0.08 INC 8/4/2008 SUPPLY >44 AAQUA DRILLING AAQUA DRILLING AAQUA DRILLING 1/2/2009 DOMESTIC >43 AAQUA DRILLING 1/2/2009 DOMESTIC >44 AAQUA DRILLING 1/2/2009 DOMESTIC >4									RED LODGE PUBLIC										AAOUA DRILLING		
153 252187 45.18257 -109.251833 NAV-GPS WGS84 75 20E 27 DDC WELL 0 AND LINDA 0 43 23 43 0 50 AIR 1 43 23 0.08 INC 5/27/2009 DOMESTIC >43  155 241643 45.17648 -109.247389 TRS-SEC NAD83 75 20E 34 AC WELL 0 DOEDEN KATHY 0 40 10 40 0 30 AIR 1 40 10 0.03 DOUGLAS DRILLING 1/2/2008 IRRIGATION >40  156 104811 45.17648 109.247389 TRS-SEC NAD83 75 20E 34 AC WELL 0 KARAS BENJAMIN K. 0 110TRRC 30 8 30 0 200 OTHER 0 8 8/1/1959 DOMESTIC >30  157 231468 45.17743 -109.246011 TRS-SEC NAD83 75 20E 34 ACA WELL 0 MAPTIN DON 0 100 14 60 0 18 AIR 1 25 6 0.08 INC 9/11/2006 DOMESTIC >25  158 173023 45.1794 -109.24391 NAV-GPS NAD27 75 20E 34 ABD WELL 0 MARTIN DON 0 100 14 60 0 18 AIR 0 14 0.5 B&H 7/16/1998 DOMESTIC >30  162 124990 45.18746 -109.242207 TRS-SEC NAD83 75 20E 27 DA WELL 0 JARVI TAIMI 0 30 11 0 25 40 AIR 1 1 1 1 B & H 8/12/1991 IRRIGATION >30  163 251765 45.18746 -109.242207 TRS-SEC NAD83 75 20E 27 DA WELL 0 DANE, ELIZABETH 0 40 9 40 0 30 AIR 1.5 40 9 0.03 DOUGLAS DRILLING 1/8/2009 IRRIGATION >40  164 247545 45.19462 -109.24093 SUR-GPS NAD27 75 20E 27 AAD WELL 0 SCHOOL 0 65 25 64 0 300 AIR 1 64 25 0.08 INC 7/12/2008 DOMESTIC 64	<b>152</b> 24757	79 45.183	-109.249333 NAV-GPS	WGS84	7S	20E	27	CDD WELL		0	44	22	43	0	50 AIR	1	43	22	_		>44
155 241643 45.17648 -109.247389 TRS-SEC NAD83 75 20E 34 AC WELL 0 DOEDEN KATHY 0 40 10 40 0 30 AIR 1 40 10 0.03 DOUGLAS DRILLING 1/2/2008 IRRIGATION >40 10 10 10 10 10 10 10 10 10 10 10 10 10									RUTHERFORD CHARLES												
156 104811 45.17648 -109.247389 TRS-SEC NAD83 7S 20E 34 AC WELL 0 KARAS BENJAMIN K. 0 110TRRC 30 8 30 0 200 OTHER 0	<b>153</b> 25218	45.182	7 -109.251833 NAV-GPS	WGS84	7S	20E	27	DDC WELL	0 AND LINDA	0	43	23	43	0	50 AIR	1	43	23	0.08 INC	5/27/2009 DOMESTIC	>43
156 104811 45.17648 -109.247389 TRS-SEC NAD83 7S 20E 34 AC WELL 0 KARAS BENJAMIN K. 0 110TRRC 30 8 30 0 200 OTHER 0																					
157 231468 45.17743 -109.246011 TRS-SEC NAD83 75 20E 34 ACA WELL 0 MPPP 0 25 6 25 0 60 AIR 1 25 6 0.08 INC 9/11/2006 DOMESTIC >25 158 173023 45.1794 -109.2439 NAV-GPS NAD27 75 20E 34 ABD WELL 0 MARTIN DON 0 100 14 60 0 18 AIR 0 14 0.5 B&H 7/16/1998 DOMESTIC 16 162 124990 45.18746 -109.242207 TRS-SEC NAD83 75 20E 27 DA WELL 0 JARVI TAIMI 0 30 11 0 25 40 AIR 1 1 1 1 1 B&H 8 H 8/12/1991 IRRIGATION >30 163 251765 45.18746 -109.242207 TRS-SEC NAD83 75 20E 27 DA WELL 0 DANE, ELIZABETH 0 40 9 40 0 30 AIR 1.5 40 9 0.03 DOUGLAS DRILLING AAQUA DRILLING	<b>155</b> 24164	45.176	18 -109.247389 TRS-SEC	NAD83	7S		34	AC WELL		0	40	10		0	30 AIR	1	40	10	0.03 DOUGLAS DRILLING	1/2/2008 IRRIGATION	
157 231468 45.17743 -109.246011 TRS-SEC NAD83 75 20E 34 ACA WELL 0 MPPP 0 25 6 25 0 60 AIR 1 25 6 0.08 INC 9/11/2006 DOMESTIC >25 158 173023 45.1794 -109.2439 NAV-GPS NAD27 75 20E 34 ABD WELL 0 MARTIN DON 0 100 14 60 0 18 AIR 0 14 0.5 B& H 7/16/1998 DOMESTIC 16 16 162 124990 45.18746 -109.242207 TRS-SEC NAD83 75 20E 27 DA WELL 0 JARVI TAIMI 0 30 11 0 25 40 AIR 1 1 1 1 B& H 8/12/1991 IRRIGATION >30 11 0 25 40 AIR 1.5 40 9 0.03 DOUGLAS DRILLING 1/8/2009 IRRIGATION >40 164 247545 45.19462 -109.24093 SUR-GPS NAD27 75 20E 27 AAD WELL 0 SCHOOL 0 65 25 64 0 300 AIR 1 64 25 0.08 INC 7/12/2008 DOMESTIC 64 BEARTOOTH NATURE	<b>156</b> 10481	45.176	18 -109.247389 TRS-SEC	NAD83	7S	20E	34	AC WELL		0 110TRRC	30	8	30	0	200 OTHER	0			ß	8/1/1959 DOMESTIC	>30
158 173023 45.1794 -109.2439 NAV-GPS NAD27 7S 20E 34 ABD WELL 0 MARTIN DON 0 100 14 60 0 18 AIR 0 14 0.5 B & H 7/16/1998 DOMESTIC 16 162 124990 45.18746 -109.242207 TRS-SEC NAD83 7S 20E 27 DA WELL 0 JARVI TAIMI 0 30 11 0 25 40 AIR 1 11 1 B & H 8/12/1991 IRRIGATION >30 11 0 25 40 AIR 1.5 40 9 0.03 DOUGLAS DRILLING 1/8/2009 IRRIGATION >40 RED LODGE PUBLIC AAQUA DRILLING NAD27 7S 20E 27 AAD WELL 0 SCHOOL 0 65 25 64 0 300 AIR 1 64 25 0.08 INC 7/12/2008 DOMESTIC 64 BEARTOOTH NATURE													_				_		•		
162       124990       45.18746       -109.242207       TRS-SEC       NAD83       7S       20E       27       DA       WELL       0       JARVI TAIMI       0       30       11       0       25       40 AIR       1       11       1       B & H       8/12/1991       IRRIGATION       >30         163       251765       45.18746       -109.242207       TRS-SEC       NAD83       7S       20E       27       DA       WELL       0       DANE, ELIZABETH       0       40       9       40       0       30 AIR       1.5       40       9       0.03       DOUGLAS DRILLING       1/8/2009       IRRIGATION       >40         164       247545       45.19462       -109.24093       SUR-GPS       NAD27       7S       20E       27       AAD       WELL       0       SCHOOL       0       65       25       64       0       300 AIR       1       64       25       0.08       INC       7/12/2008       DOMESTIC       64         164       247545       45.19462       -109.24093       SUR-GPS       NAD27       7S       20E       27       AAD       WELL       0       SCHOOL       0       65       25       64									-	0		6		0		1	25	6			-
163 251765 45.18746 -109.242207 TRS-SEC NAD83 7S 20E 27 DA WELL 0 DANE, ELIZABETH 0 40 9 40 0 30 AIR 1.5 40 9 0.03 DOUGLAS DRILLING 1/8/2009 IRRIGATION >40  164 247545 45.19462 -109.24093 SUR-GPS NAD27 7S 20E 27 AAD WELL 0 SCHOOL 0 65 25 64 0 300 AIR 1 64 25 0.08 INC 7/12/2008 DOMESTIC 64  BEARTOOTH NATURE										0			60	0		0					
164 247545 45.19462 -109.24093 SUR-GPS NAD27 7S 20E 27 AAD WELL 0 SCHOOL 0 65 25 64 0 300 AIR 1 64 25 0.08 INC 7/12/2008 DOMESTIC 64 BEARTOOTH NATURE	<b>162</b> 12499	45.18/	+0 -109.242207 TKS-5EC	NAU83	/5	ZUE	21	DA WELL	O JANVI IAIIVII	U	30	11	U	25	40 AIK	1		11	1 D Ø U	0/12/1331   IKKIGATION	>30
164 247545 45.19462 -109.24093 SUR-GPS NAD27 7S 20E 27 AAD WELL 0 SCHOOL 0 65 25 64 0 300 AIR 1 64 25 0.08 INC 7/12/2008 DOMESTIC 64 BEARTOOTH NATURE	<b>163</b> 25176	55 45 197	16 -109 242207 TRS-SEC	NAD83	75	20F	27	DA WELL	0 DANE, FLIZARETH	0	40	q	40	n	30 AIR	1 5	40	g	0.03 DOUGLAS DRILLING	1/8/2009 IRRIGATION	>40
164       247545       45.19462       -109.24093       SUR-GPS       NAD27       7S       20E       27       AAD       WELL       0       SCHOOL       0       65       25       64       0       300 AIR       1       64       25       0.08 INC       7/12/2008       DOMESTIC       64         BEARTOOTH NATURE       BEARTOOTH NATURE       BEARTOOTH NATURE       AAQUA DRILLING       AAQUA DRILLING       AAQUA DRILLING	203 231/0	75.107	103.242207 ING-SEC	14/1003	/3	201	21	DA WELL	,		70	9	70	J	30 AIII	1.5	70	,		1,0,2003   11110A11011	740
BEARTOOTH NATURE AAQUA DRILLING AAQUA DRILLING	<b>164</b> 24754	45.194	-109.24093 SUR-GPS	NAD27	<b>7</b> S	20E	27	AAD WELL		0	65	25	64	0	300 AIR	1	64	25	•	7/12/2008 DOMESTIC	64
165 231524 45.19592 -109.240841 TRS-SEC NAD83 7S 20E 27 AAA WELL 0 CENTER 0 88 33 87 0 125 AIR 1 88 33 0.08 INC 9/14/2006 DOMESTIC >88						-						-		-				-		. ,	
	<b>165</b> 23152	45.195	92 -109.240841 TRS-SEC	NAD83	7S	20E	27	AAA WELL	0 CENTER	0	88	33	87	0	125 AIR	1	88	33	0.08 INC	9/14/2006 DOMESTIC	>88

