

# MAR 20060003: WEST CENTRAL

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APR 28 2006  
20060003

**GRAYMONT WESTERN CANADA INC.**  
**2005 EXPLORATION AND DIAMOND DRILL PROGRAM**  
**AT THE CORKSCREW MOUNTAIN PROPERTY,**  
**WEST CENTRAL ALBERTA**

**PART B**

Metallic and Industrial Minerals Permits  
9396020019, 9305090646 and 9398100125

Geographic Coordinates  
51°58' N to 52°15' N  
115°15'W to 115°35'W

NTS Sheets  
82 O/13 and O/14, 83 B/3 and B/4

Owner and Operator: MAIM Permits 9396020019 and 9305090646  
Graymont Western Canada Inc.  
Lime Divisional Office  
190, 3025 - 12 Street N.E.  
Calgary, AB, T2E 7J2

Consultant: Dahrouge Geological Consulting Ltd.  
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Date Submitted: May 12, 2006

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## 1.

## INTRODUCTION

During the fall of 2005, Dahrouge Geological Consulting Ltd., on behalf of Graymont Western Canada Inc., conducted a diamond drilling program on Metallic and Industrial Minerals Permits 9396020019 and 9305090646. The permit encompasses the northern parts of Clearwater and Marble ranges of the Alberta Foothills, within west-central Alberta. The exploration program included the completion of two NQ-sized drill holes at Corkscrew Mountain, totaling 227.68 metres. The exploration described herein was conducted as a follow-up to previous exploration at and near Corkscrew Mountain during the summers of 1997, 1999, 2001 and 2003.

## 2.

## SUMMARY

High-quality carbonate units of the Rundle and Banff assemblages were encountered in both drill holes. The lowermost 40.50 to 55.02 m of the Rundle Assemblage, and between 37.35 and 50.31 m of the uppermost parts of the Banff Formation was intersected in the two drill holes. The lower parts of the Rundle Assemblage are characterized by dolomitic limestone, lime mudstones, wackestone and grainstones. The Banff Formation is dominated by calcareous shale, with thin intervals of grainstone. Approximate bedding dips were estimated to vary from 25° to 35°.

Throughout this report attitudes of bedding and other planar features are given as A°/B° SW, where A° is the azimuth of the strike and B° is the amount of dip in the direction indicated. A magnetic declination of 18° east was used. Where bedding has been obscured by structure or could not be determined, stratigraphic thicknesses were calculated using orientations from adjacent units. Where more than one bedding orientation was measured, the mean orientation was used.

## 3.

## GEOGRAPHIC SETTING

### 3.1 LOCATION AND ACCESS

The Corkscrew Mountain permits encompasses areas within the southern part of Clearwater Range, including Corkscrew Mountain and parts of Oradea Ridge, and Idlewilde Mountain along the northern part of Limestone Range. The property is west of Caroline, Alberta, which is located about 50 km south of Rocky Mountain House along Highway 22 (Fig's. 3.1 and 3.2).

Access to Clearwater Range is from Caroline, about 30 km westerly on secondary road 591 to a southerly branch of Forestry Trunk Road 40 (Fig. 3.2). This branch of Forestry Trunk Road is about 4 km east of Limeco Quarry. It continues southerly, approximately parallel to Marble Mountain at a distance of about 3 km. From Limeco Quarry, at the south end of Corkscrew Mountain, Forestry Trunk Road 40 continues northwest for about 5 km along the west flank of

Corkscrew Mountain. There it turns westerly and continues on to Idlewilde Mountain.

The northern parts of Corkscrew Mountain are about 18 km south of the CNR spur line, east of Baseline Ridge.

### **3.2 INFRASTRUCTURE**

Accommodations, food, fuel and other necessary services are available in Caroline and Rocky Mountain House. The local economy is primarily based on agriculture, forestry, and energy-based industries.

Rocky Mountain House, with a population of about 6,500, is accessed by travelling about 67 km west from Red Deer along the David Thompson Highway (Highway 11), and then 12 km north along Highway 22.

The village of Caroline is about 49 km from Rocky Mountain House, 37 km south along Highway 22 and 12 km east along Highway 54. Caroline has a population of about 550.

### **3.3 GEOGRAPHIC NAMES AND VEGETATION**

Limestones at the Corkscrew Mountain Permit outcrop along two roughly parallel northwest trending ridges, within Clearwater River Basin of the Alberta Foothills. Limestone Range, to the southwest, is about 25 km long and encompasses Limestone Mountain, Idlewilde Mountain, and Simon Ridge. Clearwater Range, to the northeast, encompasses Baseline Ridge, Corkscrew Mountain, Oradea Ridge, and Marble Mountain. It extends from Ram River in the north to Teepee Pole Creek in the south, a distance of approximately 45 km.

The area is included in the Eastern-Slope Montane Forest Ecological Region, and lies within the Rocky-Clearwater District of the Alberta Forest Reserve. In the subalpine zone, vegetation consists of stunted subalpine fir and Englemann Spruce, and above treeline of alpine foliage. Vegetation in areas of rugged limestone outcroppings is generally sparse. Below treeline, vegetation consists of dense stands of Aspen, Lodgepole Pine, White Spruce, and less frequent stands of Douglas Fir. Areas of lowest relief are covered with dense stands of Black Spruce and thick undergrowth, with local muskegs and swamps.

Throughout this report, informal names have been assigned to previously unnamed creeks, ridges and other local features to facilitate reference to geographic locations. The northwesterly trending ridge immediately east of Corkscrew Mountain was named Oradea Ridge; the divide between Limestone and Rocky creeks was named Simon Ridge; and an east tributary of Limestone

Creek, with headwaters near the main peak of Limestone Mountain, was named Olleren Creek. Two southern tributaries of Clearwater River, south of Limestone Creek, were named South Seven Mile Creek and Pine Creek.

### **3.4 FIELD OPERATIONS**

Field operations were conducted by two-person geological crew from Dahrouge Geological Consulting Ltd. and a five-person drill crew from Target Drilling Inc. Personnel were based in a motel in Caroline, Alberta. Transportation to the property was by four-wheel-drive vehicle. Access throughout the property was by truck.

Garmin 12XL GPS instruments were used to mark drill locations and record access information. Accuracy was primarily dependant on forest cover and proximity to sloped ridge faces, but averaged about 7 metres. A magnetic declination of 18° east was used.

## **4. PROPERTY**

### **4.1 MAIM PERMITS 9396020019 AND 9305090646**

In 1996, Graymont Western Canada Inc. (nee: Continental Lime Ltd.) acquired MAIM permit 9396020019 to cover Paleozoic limestones at Corkscrew and Idlewilde mountains, west of Caroline, Alberta (Fig. 4.1, Table 4.1). The permit is divided into two parts: the eastern part covers Paleozoic limestones along the central part of Clearwater Range at Corkscrew Mountain and Oradea Ridge, while the western part covers Paleozoic limestones at the north end of Limestone Range at Idlewilde Mountain. A second permit, 9305090646, is adjacent and was obtained on September 9, 2005.

*The original area of MAIM permit 9396020019 totaled 8,816 hectares. Based on exploration conducted in 1997, 1999 and 2001, the permit area was reduced to 2,400 hectares (Dahrouge, 2002). Given the 2005 exploration expenditures of \$89,331.76 (Appendix 1; Section 4.2), the entirety of the current MAIM permit 9396020019 will be maintained (Table 4.2).*

**TABLE 4.1 DESCRIPTION OF CORKSCREW MOUNTAIN MAIM PERMITS  
OF GRAYMONT WESTERN CANADA INC.**

Permit	Comm. Date	Expiry Date	Land Description (Tp-RW5)	Size (Ha)
<b>Corkscrew Mountain MAIM Permits</b>				
9396020019	Feb. 29, 1996	Feb. 28, 2006	35-9W5 (Sections: 5L5, L6, L12, L13; 6L1, L8; 7SE, L3, L6) 35-10W5 (Sections: 1N; 2NE; 11; 12SW, L2, L7, L11-L13; 14S, NW, L9, L10, L15; 15L1, L8) 35-11W5 (Sections: 2W, L7, L10, L16; 3; 10SE, L3, L6, L9, L10, L11, L16; 11L4, L5, L12, L13; 12L1, L2, L3, L4, L6, L7, L13, L14; 13L4, L5; 14NE, L1, L8; 15L1, L6, L11, L12; 22L13, L14; 23L2, L3, L6, L7, L11, L13, L14; 26L4, L5; 27SW, L2, L7, L8, L11, L12; 28L1, L7, L8)	2400
9305090646	Sept. 9, 2005	Sept. 9, 2007	35-9W5: (Sections: 7NW,L4,L5) 34-10W5: (Sections: 25-26;34-35; 36SW,L2,L7,L8) 35-10W5: (Sections: 1SW; 2S,NW; 3; 10S,NE,L11,L12S,L13 PORTION(S) LYING OUTSIDE SEVEN MILE PROVINCIAL RECREATION AREA; 10L14; 12NE,L1,L8,L14; 13; 14L16; 15N,SW,L2,L7; 22-23; 24S)	3,231

#### 4.2 EXPLORATION EXPENDITURES

During 2005, exploration expenditures for MAIM permits 9396020019 and 9305090646 totaled \$89,331.76, calculated from the spent amount of \$81,210.69, plus the allowable 10 per cent for overhead management fees of 8,121.07 (Appendix 1). In addition, prior excess expenditures of \$17,271.96 were previously credited to MAIM Permit 9396020019 for the assessment period 'Years 9 and 10'. Hence, the combined expenditures total \$106,603.72 (Table 4.2). Based on a permit area of 2400 hectares and assessment requirements of \$15 per hectare for the three remaining assessment periods, assessment expenditures of \$36,000 are required to keep the permit in good standing for the remaining assessment periods. The balance of expenditures are to be assigned to MAIM Permit 9305090646.

**TABLE 4.2 ALLOCATION OF EXPENDITURES\***

Permit	Assessment Period	Permit Area*	Required Expenditures*	Assigned Expenditures*
9396020019	Years 9 & 10	2400	\$ 36,000.00	\$ 18,728.04 <sup>†</sup>
	Years 11 & 12	2400	\$ 36,000.00	\$ 36,000.00
	Years 13 & 14	2400	\$ 36,000.00	\$ 36,000.00
9305090646	Years 1 & 2	3231	\$16,155.00	\$ 15,875.68
			Total:	\$ 106,603.72

\* Based upon the permit area of Section 3.1

<sup>†</sup> Calculated from excess expenditures of 2003 (required \$36,000.00 - excess \$17,271.96)



## 5. 2005 EXPLORATION

In advance of drilling, hole locations and access roads were located in the field on June 9, and again on September 20.

Between October 15 and 24, 2005, two holes were drilled by Graymont Western Canada Inc. within the Corkscrew Mountain MAIM Permit (Table 5.1). The holes were drilled 400 metres apart to test the extent and continuity of high-quality carbonates on the northwest flank of Corkscrew Mountain. Drill cores from the two holes were logged and examined on site by Dahrouge Geological Consulting Ltd. on behalf of Graymont Western Canada Inc. Information such as lithology, quality, structural measurements and other geological observations were recorded. A solution of 6% HCl was used to assess the quality of the carbonate lithotypes in the field.

Core from the limy intervals were split along the axial plane, with half of the core sent for chemical analysis to the Quality Assurance Laboratory of Graymont Western Canada Inc., and the other preserved as a witness sample. As of the time of writing this report, the analyses were unavailable; hence, the results are not included herein; nor are the costs associated with their collection.

**TABLE 5.1 SUMMARY OF THE 2005 DRILL HOLES**

Hole ID	Location	Assemblage	Depth (m)	Number of Samples
CS05-01	Along Northeast Trending Cutline, near Radio Tower	Rundle, Banff	98.45	32
CS05-02	Along Northeast Trending Cutline, near Radio Tower	Rundle, Banff	<u>129.23</u>	<u>48</u>
<b>Totals:</b>			227.68	152

### 5.1 Drillhole CS05-01

About 100 m to the south of Forestry Trunk Road 752, diamond drill hole F05-01 was drilled to a depth of 98.45 m with a bearing of 65° and inclination of -60° (Appendix 3).

Below the 20 metres of overburden at the drill site, 40.5 metres of the Rundle Assemblage and 37.35 metres of Banff Assemblage were encountered. In CS05-01, the Rundle Assemblage was characterized by lime mudstones, wackestone and grainstones. The Banff Assemblage was dominated by calcareous shale, with thin intervals of grainstone. Bedding measurements are perpendicular to the core-axis in the Rundle Assemblage and between 80° to 85° in the Banff Assemblage, indicating approximate dips from 25° to 35° to the southwest.

## 5.2 Drillhole CS05-02

About 100 m to the north of Forestry Trunk Road 752, diamond drill hole F05-02 was drilled to a depth of 129.23 m with a bearing of 65° and inclination of -60° (Appendix 3).

Below the 25.6 meters of overburden, 38.9 metres of the Rundle Assemblage and 50.31 metres of Banff Assemblage were encountered. In hole CS05-02, the Rundle Assemblage was characterized by dolomitic limestone, lime mudstones, wackestone and grainstones. The Banff Assemblage was dominated by calcareous shale. Bedding measurements were angled 85° to the core axis, indicating approximate dips from 25° to 35° to the southwest.

## 6. REGIONAL GEOLOGY

Clearwater and Limestone ranges of the Alberta Foothills, were previously mapped according to NTS map sheets by the following officers of the Geological Survey of Canada:

<u>NTS Map Sheet</u>	<u>Reference</u>
82 O/14 W½ (Limestone Mountain)	Ollerenshaw (1968)
82 O/14 E½ (Marble Mountain)	Ollerenshaw (1965)
83 B/3 W½ (Tay River)	Henderson (1944); (1945a)
83 B/4 E½ (Fall Creek)	Henderson (1945b); (1946)
83 B/5 E½ (Saunders)	Erdman (1950)

At Clearwater and Limestone ranges, carbonate lithologies are known to occur within both Palaeozoic and Mesozoic sequences. Palaeozoic limestones are described in the Upper Devonian Palliser Formation, Upper Devonian to Lower Carboniferous Banff Formation and the Lower Carboniferous Rundle Assemblage. Limited quantities of limestone have been produced from the upper part of the Banff Formation and the lower part of the Rundle Assemblage at the Limeco Quarry at the south end of Corkscrew Mountain. Mesozoic carbonate rocks are known in the Nordegg Member of the Fernie Group.

The Rundle Assemblage and other Paleozoic s at Clearwater Range have been examined by several authors including Erdmer (1986), Halferdahl and Gorham (1990a and 1990b), Holter (1990), Hamilton (1993), Dahrouge and Halferdahl (1995), and Dahrouge (2000). As previous reports (Pana and Dahrouge, 1998; Dahrouge, 2000 and 2002) include detailed descriptions of the stratigraphy and structure of Clearwater and Limestone ranges, that information is not repeated herein. New information bearing on these subjects is, however, included.

## **7. PROPERTY GEOLOGY**

### **7.1 STRATIGRAPHY**

Palaeozoic limestones of the Mississippian Banff Assemblage and the Rundle Assemblage are exposed on Corkscrew Mountain, Oradea Ridge and Idlewilde Mountain. The Banff Assemblage consists of thin-bedded argillaceous and calcareous siltstone, and silty limestone. It is more than 200 m thick. According to Dahrouge (2002; p.7),

“Along the southwest flank of Corkscrew Mountain the lower part of the Rundle Assemblage exceeds 65 m (Dahrouge, 2000). Due to poor exposure, thickness and correlation of the various subunits of the Rundle Assemblage is uncertain. Limited examinations along Marble Mountain Anticline at Oradea Ridge and Marble Mountain, indicated similar stratigraphy to that observed at Corkscrew Mountain.

At Oradea Ridge, two intervals with appreciable thicknesses of coarse-grained limestone are separated by approximately 10 m of dolomite and dolomitic limestone.”

At Corkscrew Mountain, the lower part of the Rundle Assemblage includes thick-bedded to massive, medium- to coarse-grained, crinoidal grainstone and wackestone, with interbeds of lime mudstone and dolomite. The apparent thickness of the lower part of the Rundle Assemblage may increase from the west to the east. At some locations on the west flank of Corkscrew Mountain, limestone units within the lower part of the Rundle Assemblage are less than 10 m thick; to the east, thicknesses of more than 15 m have been measured during prior exploration programs.

### **7.2 STRUCTURE**

As previously indicated by Dahrouge (2002; p.6),

“At Clearwater Range are a series of northwest trending anticlines and synclines, from southwest to northeast: Corkscrew Mountain Anticline, Corkscrew Mountain Syncline, and Marble Mountain Anticline (Ollerenshaw, 1968). The southwest limb of Corkscrew Mountain Anticline is cut by the southwest dipping Corkscrew Mountain Thrust, and its east limb is cut by an east-dipping backthrust. A detailed account of the pertinent structures is provided by Dahrouge (2000).

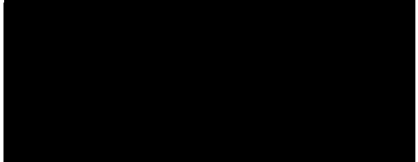
Prominent dip-slopes and partial dip-slopes are present along the west flank of Corkscrew Mountain, with dips of between 10° to 40° SW. Along the northwestern part of Corkscrew Mountain, dipslopes at Areas A0 to A4, are underlain by Paleozoic limestones of the Banff Formation and Rundle Assemblage.

North of Clearwater River, near the northern terminus of the Marble Mountain Anticline, dips vary from 20° to 80°. A dip-slope on the west flank of Oradea Ridge, with dips of 20° to 50° SW, is underlain by the Rundle Assemblage.”

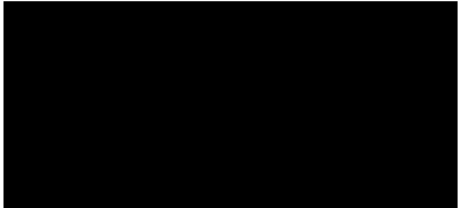
## 8. CONCLUSIONS

Carbonate intervals of the Banff Formation and lowermost Rundle Assemblage were cored at two locations along the northwestern flank of Corkscrew Mountain. The top 37.35 to 50.31 m of the Banff Assemblage and lowermost 40.50 to 55.02 m of the Rundle Assemblage were intersected in the drill holes.

The Banff Assemblage consisted dominantly of calcareous shale and mudstone with thin interbeds of grainstone. The Rundle Assemblage consisted of lime mudstone, dolomitic wackestone and grainstone. Both drill holes identified approximate bedding dips from 25° to 35°.



J. Tanton, B.Sc., Geol. I.T.



J.R. Dahrouge, B.Sc., P.Geol.

## 9. REFERENCES

- Dahrouge, J.R. (2000) Exploration for High-Calcium Limestone at Clearwater and Limestone Ranges of West-Central Alberta, ass. rept. on MAIM Permits 9396020019 and 9398100125 for Continental Lime Ltd., Dahrouge Geological Consulting Ltd., Edmonton, 20 p., 5 tables, 10 fig., 5 appendices.
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- \_\_\_\_\_ (1945b) Fall Creek map-area, Alberta; Geol. Surv. Can. Paper 45-19.

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\_\_\_\_\_ (1968) Preliminary account of the geology of Limestone Mountain map-area, southern Foothills, Alberta; Geol. Surv. Can. Paper 68-24.

Pana, D., and Dahrouge, J., (1998) 1997 Exploration Near Corkscrew and Idlewilde Mountains, West-Central Alberta; ass. rept. On MAIM Permit 9396020019 for Continental Lime Ltd., Halferdahl and Associates (a division of Dahrouge Geological Consulting Ltd.), Alta. Geol. Surv. Index No. 19980013, Edmonton, 17 p., 8 App., 6 Fig., 4 Tables.

## APPENDIX 1: ITEMIZED COST STATEMENT FOR THE 2005 EXPLORATION

a) <u>Personnel</u>			\$ 24,200.89
b) <u>Food and Accommodation</u>			
	22 man-days @ \$ 36.44 accommodations	\$ 801.74	
	22 man-days @ \$ 2.80 meals	\$ 61.61	
	22 man-days @ \$ 13.10 groceries and other	\$ 288.20	
			\$ 1,151.55
c) <u>Transportation</u>			
	Vehicles: Rental(s) for 4x4 Vehicle(s) (October)	\$ 894.52	
	Fuel	\$ 774.75	
	Mileage	\$ 865.71	
			\$ 2,534.98
d) <u>Instrument Rental</u>	n/a		
e) <u>Drilling</u>			
	Target Drilling (228 m, NQ Core)	\$ 51,208.04	
			\$ 51,208.04
f) <u>Analyses</u>	n/a		
g) <u>Report</u>	Reproductions and assembly	\$ 48.40	
			\$ 48.40
h) <u>Other</u>			
	Courier and Shipping	\$ 8.54	
	Disposable Supplies	\$ 276.00	
	Equipment (Miscellaneous)	\$ 134.77	
	Long distance telephone	\$ 38.70	
	Permits	\$ 165.00	
	Photocopying	\$ 20.00	
	Plots	\$ 647.35	
	Storage	\$ 776.48	
			\$ 2,066.83
<u>Total</u>			<u>\$ 81,210.69</u>

### **APPENDIX 3: STATEMENT OF QUALIFICATIONS**

The field work described in this report was supervised by Jody Dahrouge.

J.R. Dahrouge is a geological consultant with Dahrouge Geological Consulting Ltd. based in Edmonton, Alberta. He obtained degrees in geology and computing science from the University of Alberta, Edmonton in 1988 and 1994, respectively. He has more than 10 years of experience in mineral exploration. He is a member of the Canadian Institute of Mining and Metallurgy and is registered as P. Geol. with the Association of Professional Engineers, Geologists, and Geophysicists of Alberta.

J. Tanton is a geological consultant with Dahrouge Geological Consulting Ltd. based in Edmonton, Alberta. She obtained a degree in geology from the University of Alberta, Edmonton in 2003 and has been employed in the mineral exploration industry since. She is registered as a Geol. I.T. with the Association of Professional Engineers, Geologists, and Geophysicists of Alberta.





**Appendix 3**  
**2005 DRILL LOGS**

# DIAMOND DRILL LOG

<b>Company:</b>		<b>GRAYMONT WESTERN CANADA INC.</b>					
<b>Project:</b>		<b>Corkscrew Mountain</b>				<b>Hole No:</b>	<b>CS 05-02</b>
<b>Dip Tests</b>		<b>Claim:</b>	<b>Co-ordinates (NAD83)</b>		<b>Date Started:</b>	<b>Oct 19,2005</b>	<b>Section:</b>
<b>Depth</b>	<b>Angle</b>	<b>Bearing:</b>	<b>65°</b>	<b>Easting (m):</b>	<b>614356.0</b>	<b>Date Finished:</b>	<b>Oct 23,2005</b>
<b>collar</b>	<b>60°</b>	<b>Inclination:</b>	<b>60°</b>	<b>Northing (m):</b>	<b>5761925.0</b>	<b>Date Logged:</b>	<b>Oct 24,2005</b>
		<b>Elevation (m):</b>		<b>Logged By:</b>		<b>S Fraser</b>	<b>Total Depth:</b>
							<b>129.23 m</b>

From m	To m	Interval m	RQD %	Description	Sample #	From m	To m	Length m
0.00	23.77	23.77		CASING				
23.77	25.60	1.83		OVERBURDEN				
23.90	78.92	16.10	55.02	<b>PEKISKO FORMATION</b>				
23.90	40.00	16.10	25.8	<b>LIMESTONE, DOLOMITIC LIMESTONE AND DOLOMITE</b>	22884	23.90	25.60	1.70
				predominately lime mudstone, with some dolomite; lime mudstone is grey-brown, or light- to dark-grey, cryptocrystalline,	22885	25.60	27.00	1.40
				massive; dolomite is tan to light-gray, massive	22886	27.00	28.20	1.20
				23.77-28.35m - lime mudstone, grey-brown, massive, cryptocrystalline, vuggy with 1 - 2 mm calcite filled vugs, abundant broken core	22887	28.20	29.35	1.15
				23.85m - carbonaceous fractures sub parallel to CA	22888	29.35	31.00	1.65
				28.20 -29.35 tan to light-grey, massive, dolomitic limestone, fracture sub-parallel to CA, tan to light-grey, massive,	22889	31.00	33.00	2.00
				dolomitic limestone, clay-lined (2-3 mm) fracture running sub parallel to CA	22890	33.00	35.00	2.00
				28.55m - clay/gouge 85° to CA, 3mm across	22891	35.00	37.19	2.19
				28.25m - grainstone, 10cm across, upper contact 85° to CA	22892	37.19	39.00	1.81
				29.20-34.95m - lime mudstone, light-grey to dark-grey, fine-grained, abundant stylolites, few fractures at steep angles to CA	22893	39.00	40.00	1.00
				34.95-37.25m - broken limestone, fractures sub parallel to CA				
40.00	48.70	8.70		<b>LIMEY DOLOMITE, DOLOMITIC LIMESTONE</b>	22894	40.00	41.50	1.50
				grey- to brown, finely cryptocrystalline, local vugs to 3 cm across,	22895	41.50	43.59	2.09
				weak reaction to 6% HCL,	22896	43.59	45.00	1.41
				40.00-48.70m - dolomitic limestone, massive	22897	45.00	46.94	1.94
					22898	46.94	48.70	1.76
48.70	60.65	11.95		<b>GRAINSTONE:</b>	22899	48.70	51.10	2.40
				light-grey, medium-grained, some coarse-grained material, massive, upper contact 80° to 85° CA	22900	51.10	52.00	0.90
				51.10-52.00m - limestone, fine-grained	22901	52.00	53.00	1.00
				57.53-57.95m - limestone, mainly broken core, vuggy, reacts well in 6% HCL	22902	53.00	55.00	2.00
				(in part oxidized)	22903	55.00	56.00	1.00
				60.65-65.80m - dolomitic limestone, light-grey to brown, some vugs, massive, fine-crystalline; some lost core	22904	56.00	57.35	1.35
					22905	57.35	57.95	0.60
					22906	57.35	59.00	1.65
					22907	59.00	60.65	1.65

# DIAMOND DRILL LOG

Company:		GRAYMONT WESTERN CANADA INC.						Hole No:		CS 05-02	
Project:		Corkscrew Mountain									
From m	To m	Interval m	RQD %	Description				Sample #	From m	To m	Length m
60.65	65.80	5.15		<b>LIMEY DOLOMITE, DOLOMITIC LIMESTONE</b>				22908	60.65	62.18	1.53
				light-grey-brown, fine-crystalline, vuggy, lost core in this interval				22909	62.18	63.50	1.32
								22910	63.50	65.80	2.30
65.80	78.92	13.12	35.8	<b>GRAINSTONE:</b>				22911	65.80	67.00	1.20
				light-grey, medium- to coarse-grained, massive, sharp lower contact, contact @ 85° CA, minor stylolites at steep angles to CA				22912	67.00	68.50	1.50
				78.00-78.50m - fracture subparallel to CA				22913	68.50	70.50	2.00
								22914	70.50	72.50	2.00
								22915	72.50	74.50	2.00
								22916	74.50	76.50	2.00
								22917	76.50	77.80	1.30
								22918	77.80	78.92	1.12
78.92	129.23	50.31	63.7	<b>BANFF FORMATION</b>							
78.92	107.65	28.73		<b>CALCAREOUS SHALE:</b>				22919	78.92	79.50	0.58
				fine-grained, calcareous shale, minor calcarenite, well bedded, massive				22920	79.95	80.80	0.85
				79.65-79.92m - fault zone with gouge, upper contact 85° to CA				22921	80.80	82.00	1.20
				(much broken core)				22922	82.00	83.90	1.90
				79.95-80.23m - calcareous siltstone, massive very porous, abundant vugs, reacts well with 6% HCL				22923	83.95	84.50	0.55
				80.23-83.95m - shale, very calcareous, reacts well with 6% HCL				22924	84.50	86.00	1.50
				83.25m - beds 85° to CA							
				83.95-84.50m - shale, well bedded, thin laminations				22925	106.65	107.65	1.00
				84.50-93.00m - calcareous shale, light- to dark-grey, massive, locally well bedded, some sections fossiliferous							
				91.50m - beds 85° to CA							
				93.00-101.80m - calcareous shale, light- to dark-grey, massive							
				98.65m - few stylolites 85° to CA							
				94.50m - thin shear 85° to CA							
				94.43-99.50m - fault zone with gouge, 85° to CA							
				101.80-107.65 - calcareous shale, beds 85° to CA							
				103.83m - calcarenite, 5 cm bed, contacts 83° to CA							
107.65	116.53	8.88		<b>CALCARENITE AND CALCAREOUS SHALE:</b>				22926	107.65	109.20	1.55
				interbedded, light- to dark-grey, partly mottled, fossiliferous with abundant crinoid debris				22927	109.20	110.40	1.20
				107.65-107.78m - grainstone with abundant crinoidal debris				22928	110.40	112.15	1.75
				108.45-108.55m - grainstone				22929	112.15	113.83	1.68

## DIAMOND DRILL LOG

Company:				GRAYMONT WESTERN CANADA INC.							
Project:				Corkscrew Mountain				Hole No:		CS 05-02	
From	To	Interval	RQD	Description				Sample	From	To	Length
m	m	m	%					#	m	m	m
				110.40-110.75m - grainstone, some collapse features (brecciated)				22930	113.83	115.00	1.17
								22931	115.00	116.53	1.53
116.53	119.40	2.87		<b>CHERT BEARING CALCAREOUS SHALE:</b>							
				light- to dark-grey, massive, vuggy							
				123.63-125.10m - shaly interval							
119.40	129.23	9.83		<b>CALCAREOUS SHALE:</b>							
				light- to dark-grey, calcareous shale and calcarenite interbedded, local shears							
				127.67m - shear, 5 mm across, gouge, 70° to CA							
				127.90m - shear, 5 mm across, gouge, 70° to CA							
				128.80m - beds 70° to CA							
				EOH: 129.23 m							

# DIAMOND DRILL LOG

<b>Company:</b>		<b>GRAYMONT WESTERN CANADA INC.</b>						<b>Hole No:</b>		<b>CS 05-01</b>				
<b>Project:</b>		<b>Corkscrew Mountain</b>						<b>Section:</b>						
<b>Dip Tests</b>		<b>Claim:</b>		<b>Co-ordinates (NAD83)</b>		<b>Date Started:</b>		<b>Core Size:</b>		<b>NQ</b>				
<b>Depth</b>	<b>Angle</b>	<b>Bearing: 65°</b>		<b>Easting (m): 614477.0</b>		<b>Date Finished: Oct 19, 2005</b>		<b>Total Depth:</b>		<b>98.45 m</b>				
<b>collar</b>	<b>60°</b>	<b>Inclination: -60°</b>		<b>Northing (m): 5761500.0</b>		<b>Date Logged: Oct 20, 2005</b>		<b>Logged By:</b>		<b>Neil McCallum</b>				
				<b>Elevation (m):</b>										
<b>From</b>	<b>To</b>	<b>Interval</b>	<b>RQD</b>	<b>Description</b>							<b>Sample</b>	<b>From</b>	<b>To</b>	<b>Length</b>
<b>m</b>	<b>m</b>	<b>m</b>	<b>%</b>								<b>#</b>	<b>m</b>	<b>m</b>	<b>m</b>
0.00	20.60	20.60		<b>OVERBURDEN:</b> rounded pebbles (average 4 cm), paleo river channel 20.12-20.60m - large boulders(?) of limestone										
20.60	61.10	40.50	55.02	<b>PEKISKO FORMATION</b>										
20.60	21.36	0.76	25.8	<b>LIME MUDSTONE:</b> light-grey, fine-grained, massive, dolomitic										
21.36	26.77	5.41		<b>LIME MUDSTONE:</b> light- to dark-grey to brown, dolomitic, poor core quality 21.55-22.44m - vugs to 2 cm across, lined with dolomite, 21.36-21.76m - fractured zone, 0° to CA 23.00, 23.84 and 25.20 m - fault zones, each about 5 cm across, mud-clay, brecciated 25.60-25.75m - fault at shallow angle to CA							22852	22.45	24.48	1.83
										22853	24.48	26.77	2.49	
26.77	27.90	1.13		<b>WACKESTONE:</b> dolomitic, medium-grey to brown, 5-10% crinoid ossicles, few rugose corals, up to 5% vugs which are not lined with dolomite							22854	26.77	27.90	1.13
27.90	40.06	12.16		<b>GRAINSTONE WITH THIN INTERBEDS OF LIME MUDSTONE:</b> calcarenite, light- to medium-grey, fetid odor, coarse grained (2-3mm), some thin intervals of lime mudstone, crinoids, rugose corals, shell fragments 27.90-28.33m - rugose coral and amphipora 29.70m - thin (~5 cm) interval of lime mudstone 30.00m - thin (~5 cm) interval of lime mudstone 31.20-31.70m - lime mudstone, fine-grained, medium-grey to brown, sharp upper contact along stylolite 34.65m - 4 cm cavity or vug 35.70-36.05m - lime mudstone, grey to tan, crinoid fragments, fracture parallel to CA 36.05-40.06m - grainstone, coarse-grained, light-grey, fossiliferous							22855	27.90	29.22	1.32
										22856	29.22	31.20	1.98	
										22857	31.20	31.70	0.50	
										22858	31.70	33.70	2.07	
										22859	33.79	35.70	1.93	
										22860	35.70	36.05	0.35	
										22861	36.05	37.35	1.30	
										22862	37.85	38.80	1.45	
										22863	38.80	40.06	1.26	
40.06	40.70	0.64		<b>WACKESTONE :</b> medium- to dark-grey, sharp upper contact along stylolite, bitumen(?) along contact							22864	40.06	40.70	0.64

# DIAMOND DRILL LOG

Company:				<b>GRAYMONT WESTERN CANADA INC.</b>				Hole No:				<b>CS 05-01</b>	
Project:				<b>Corkscrew Mountain</b>									
From m	To m	Interval m	RQD %	Description				Sample #	From m	To m	Length m		
40.70	45.50	4.80		<b>MUDSTONE WITH SOME INTERBEDS OF WACKESTONE:</b>				22865	40.79	42.52	1.73		
				dolomitic, medium-grey to brown, some large vugs to 3 cm across, sharp upper contact, fracture 20° to CA				22866	42.52	44.05	1.53		
								22867	44.05	45.05	1.00		
45.50	50.58	5.08		<b>GRAINSTONE :</b>				22868	45.50	47.72	2.22		
				upper contact dolomitic and gradational, medium-grey, massive, coarse-grained, fetid odor, some fractures, crinoids, shell fragments and rugose corals				22869	47.72	48.50	0.78		
				48.50-50.58m - abundant fractures, local brecciation, bleached appearance locally, fractures 30-40° to CA				22870	48.50	50.58	2.08		
50.58	59.58	9.00		<b>GRAINSTONE:</b>				22871	50.58	52.47	2.04		
				light-grey, coarse-grained crinoids, shell fragments, rugose corals, locally fractured and brecciated				22872	52.47	54.69	2.22		
				55.67-57.22m - vuggy, fractured and brecciated				22873	54.69	55.67	0.98		
				50.58-55.78m - (Box 7) core partially out of order due to spill, hence, samples results may be partially suspect				22874	55.67	57.22	1.55		
59.58	61.10	1.52		<b>GRAINSTONE:</b>				22875	57.22	59.50	2.36		
				medium-grey, medium- to coarse-grained, crinoidal grainstone, few fractures, darkens and fines to lower contact with Banff Formation				22876	59.58	61.00	1.42		
61.10	98.45	37.35		<b>BANFF FORMATION</b>									
61.10	69.46	8.36		<b>MUDSTONE WITH SOME INTERBEDS OF SHALE:</b>				22877	61.00	62.05	1.05		
				medium- to dark-grey, fine-grained, massive, local vugs, some interbeds of shale				22878	62.05	63.04	0.99		
				62.00m - fault perpendicular to CA				22879	63.04	64.25	1.21		
				62.05-63.04m - mudstone, with some thin intervals of black, shale, beds 85° to CA				22680	64.25	65.13	1.51		
				63.04-64.25m - dark-grey, fine-grained, lime mudstone, some vugs				22681	65.76	67.16	1.40		
				64.25-65.13m - thin interbeds of dark shale				22682	67.16	68.34	1.18		
				67.70m - few vugs to 1 cm across with calcite fill									
				68.34-69.46m - two thin (to 4 cm) interbeds of black shale, contacts 80° to CA									
69.46	70.20	0.74		<b>SHALE AND LIMESTONE:</b>				22683	68.34	69.46	1.18		
				dark-grey to black, approximately half shale, fine-grained, and half wackestone, dark-grey, small fossil fragments and crinoid ossicles									
70.20	79.66	9.46		<b>CALCAREOUS MUDSTONE:</b>									
				light- to medium-grey, fine-grained to cryptocrystalline, massive, calcareous mudstone									
				71.43-74.29m - few thin beds of black shale scattered throughout, fault zone with glauconite, some brecciation and veins									

# DIAMOND DRILL LOG

Company:		GRAYMONT WESTERN CANADA INC.				Hole No:		CS 05-01	
Project:		Corkscrew Mountain				Sample #	From m	To m	Length m
From m	To m	Interval m	RQD %	Description					
				75.48-77.69m - medium-grey, fine-grained, calcareous shale, fossil fragments or burrows at top					
				76.90m - vugs					
				77.69-78.48m - light-grey, fine-grained, <u>mudstone</u> , thin-beds, soft sediment deformation, vugs with calcite or dolomite fill					
				78.48-79.66m - medium- to dark-grey, dolomitic					
79.66	88.61	8.95		<b>CALCAREOUS SHALE:</b>					
				dark-grey to black, thin-beds, locally massive, very fine grained with some coarse-grained fossil fragments					
				79.66-81.49m - massive					
				81.49-81.75m - bioclastic, <u>shale to packstone</u> , small crinoid and shell fragments					
				82.35-82.53m - bioclastic <u>grainstone</u> , crinoids, shell fragments, rip-up clasts					
				81.75-82.35m - massive					
				82.53-84.33m - thin laminations, calcite veins at 10-15° to CA					
				84.33-87.64m - mottled, thin-bedded, few fossil fragments					
				87.64-88.61m - mottled dark-grey and black, sparse crinoids and fossil fragments.					
88.61	92.93	4.32		<b>MUDSTONE &amp; GRAINSTONE:</b>					
				dark-grey to black, alternates from mudstone to grainstone; mudstone is thin-bedded and mottled; grainstone is composed of crinoids shell fragments with, shell matrix					
92.93	93.48	0.55		<b>BLACKSHALE:</b>					
				dark-grey to black, shale alternating with interbeds of light colored limestone (wackestone), few larger grains of crinoids					
93.48	95.86	2.38		<b>GRAINSTONE:</b>					
				grainstone with a few thin interbeds of black shale, grainstone is medium- to coarse-grained, with crinoids, shell fragments, some rip up clasts and other bioclastics, top ½-m of unit is brecciated					
				94.10, 95.55, and 95.86m - clay altered fault zones to 4 cm across					
95.86	98.45	2.59		<b>SHALE:</b>					
				shale, mottled-dark-gray and black, fossil fragments					
				96.20m - fault zone					
				96.43-98.45m - shale, no fossil fragments					
				96.82, 97.10, 97.41, 97.92, 98.20 and 98.42m - clay altered fault zones, generally at 70° CA					
				EOH: 98.45 m					

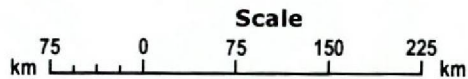




Location of  
**MAIM Permits**  
**9396020019**  
**and 9305090646**

**LEGEND**

- Provincial capital
- Other populated places
- ◆— Trans-Canada Highway
- Major road
- - - - International boundary
- ..... Provincial boundary



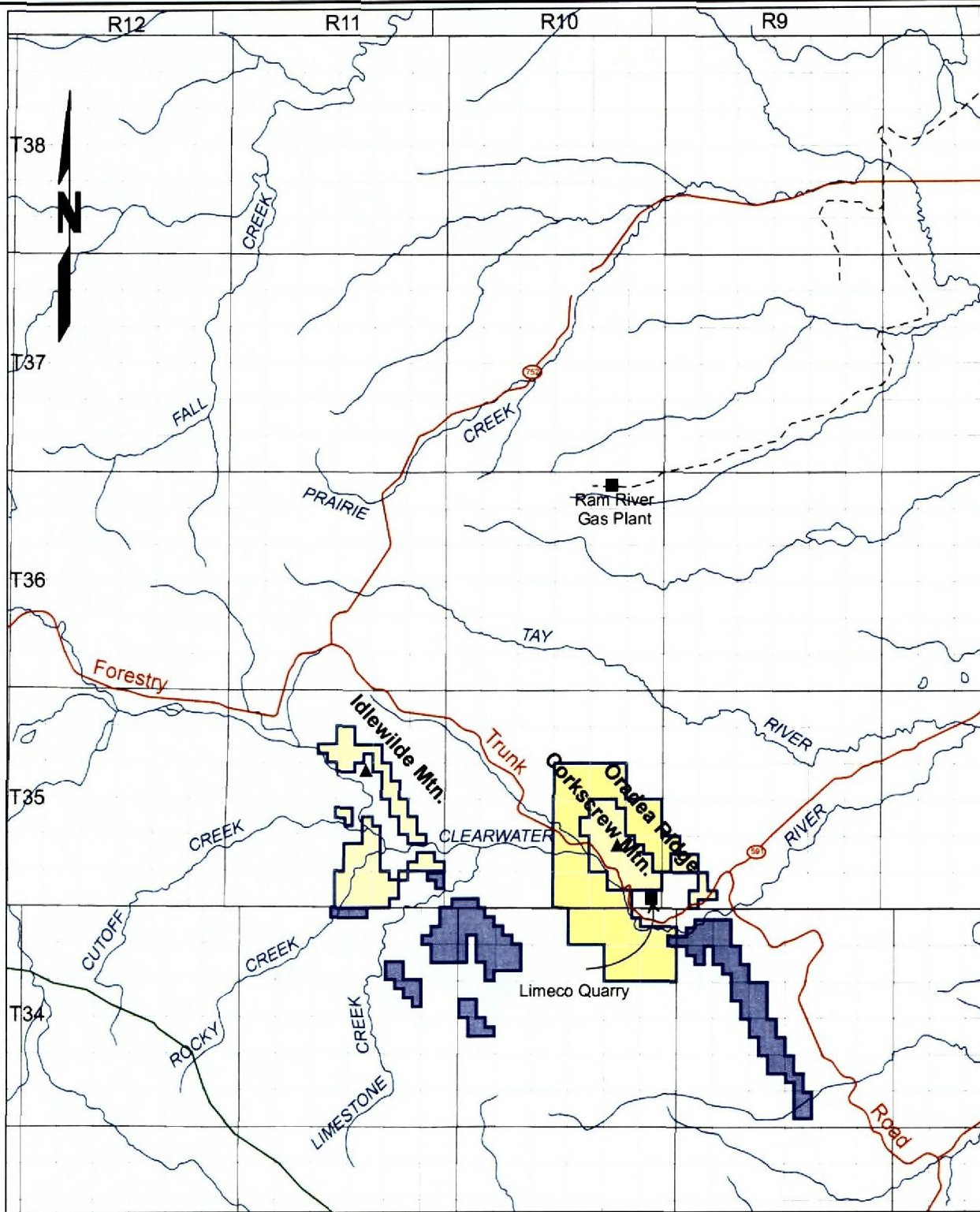
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GRAYMONT WESTERN CANADA INC.

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 Edmonton, Alberta

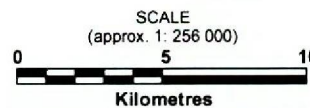
CORKSCREW MOUNTAIN, WEST-CENTRAL ALBERTA

**Fig. 3.1 Location Map**



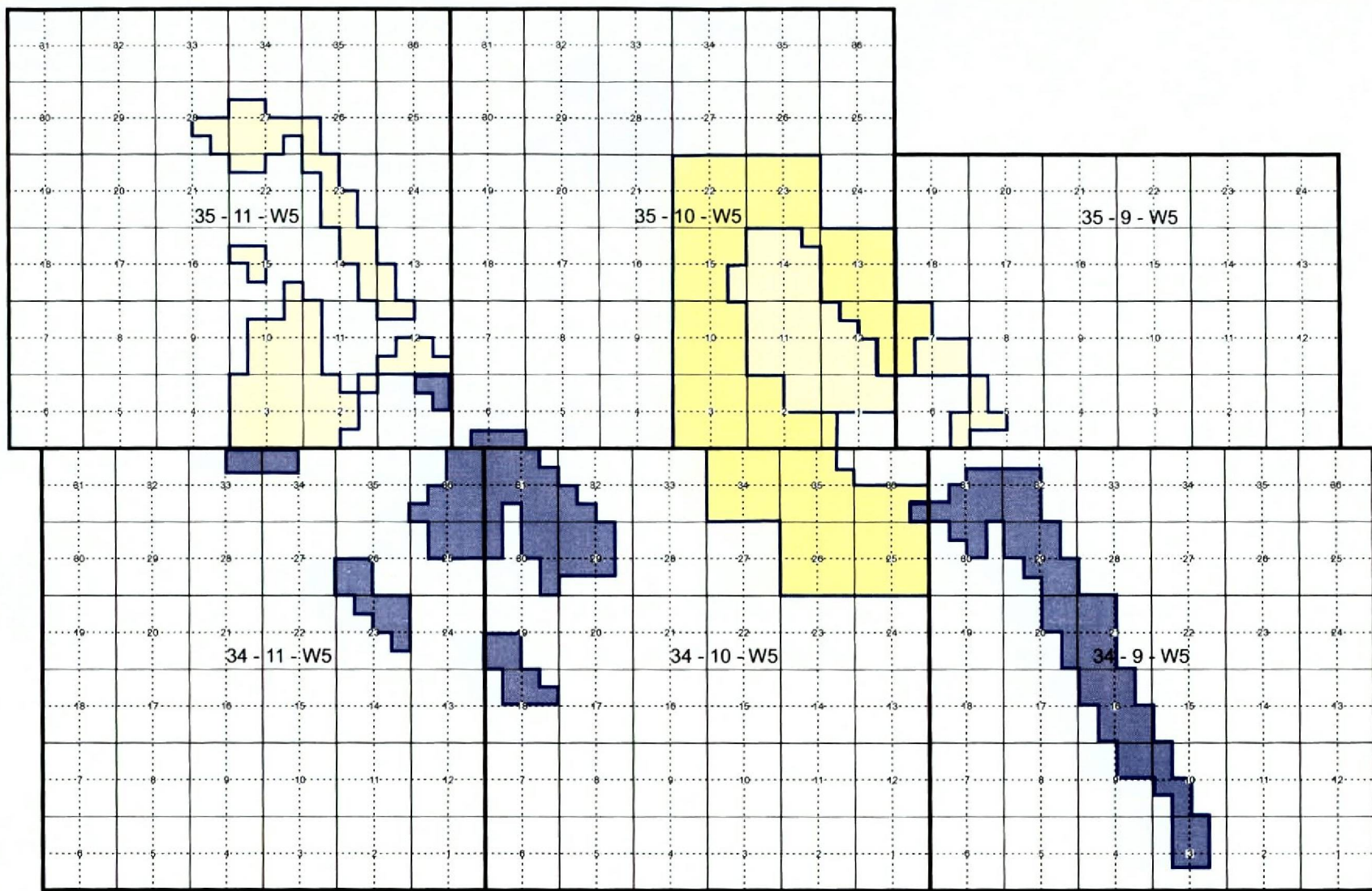
**LEGEND & SYMBOLS**

- Metallic and Industrial Minerals Permit #9396020019
- Metallic and Industrial Minerals Permit #9305090646
- Metallic and Industrial Minerals Permit #9398100125
- Highway or Secondary Road
- Railway
- Park or Protected Area



**GRAYMONT WESTERN CANADA INC.**  
 DAHROUGE GEOLOGICAL CONSULTING LTD.  
 EDMONTON, ALBERTA  
 CORKSCREW MOUNTAIN, WEST-CENTRAL ALBERTA

**Fig. 3.2 Property & Access Map**



**Corkscrew Mountain Permit**

- Current area of MAIM Permit 9396020019  
(2,400 ha.)
- Current area of MAIM Permit 9305090646  
(3,231 ha.)
- Current Area OF MAIM Permit 9398100125  
(2,416 Ha)

Scale 0 1 2 5 10 Kilometers

**GRAYMONT WESTERN CANADA INC.**

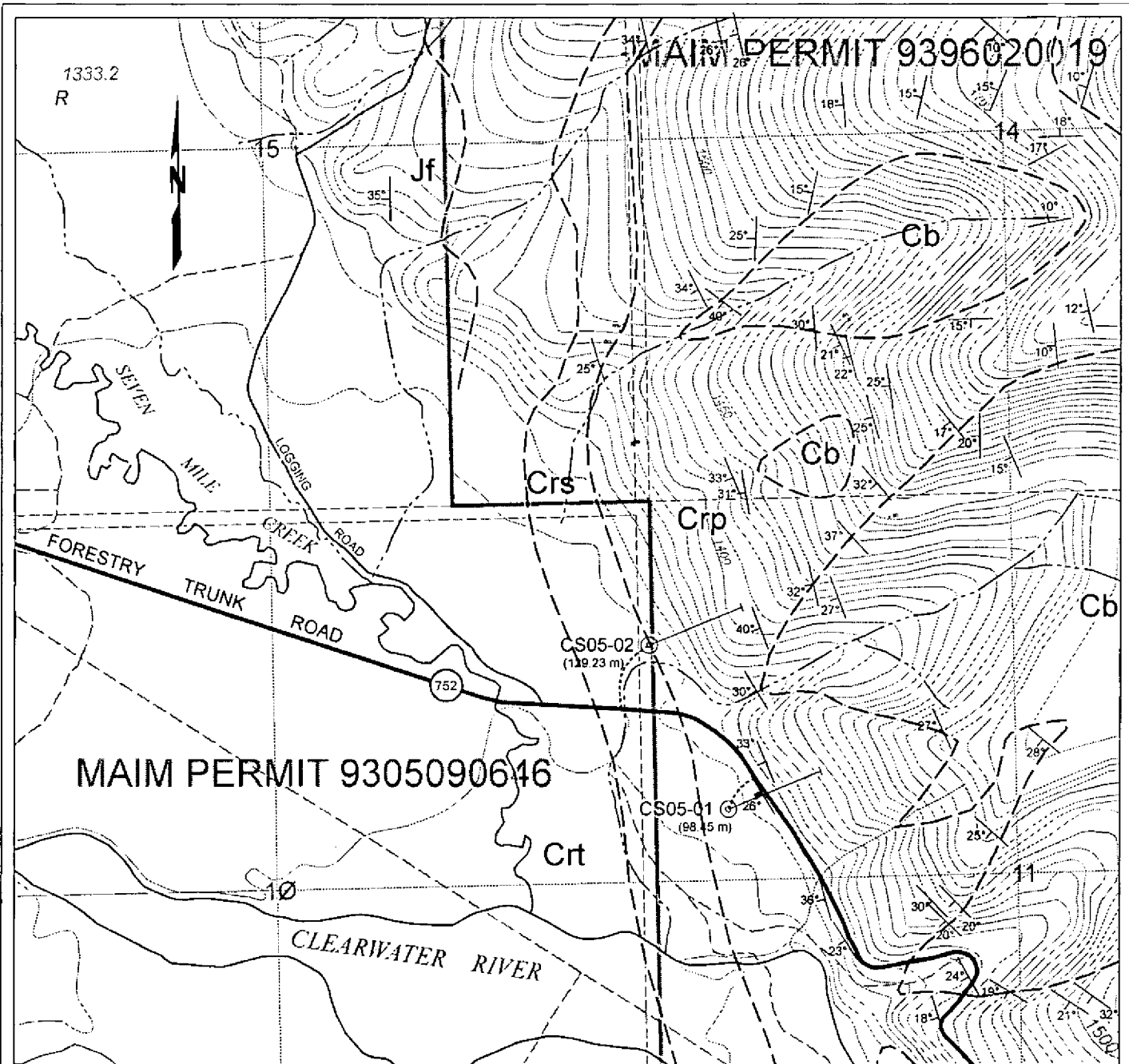
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Edmonton, Alberta

CORKSCREW MOUNTAIN, WEST-CENTRAL ALBERTA

**Fig. 4.1 Permit Map**

JD/DS

2006.07



PART OF TP 35, RGE 10 W5

JURASSIC AND LOWER CRETACEOUS

- FERNIE GROUP  
**Jf** Undivided shale, sandstone, and carbonates

CARBONIFEROUS

- RUNDLE GROUP  
**Crt** Turner Valley Formation: dolomite, argillaceous dolomite, limestone  
**Crs** Shunda Formation: tan-bedded, silty dolomite, cherty and dolomitic limestone, shales, anhydrite  
**Crp** Pekisko Formation: fine to coarse calcarenite, fine-grained dolomite  
**Cb** Banff Formation: argillaceous, cherty limestone, fissile and calcareous shale

SYMBOLS

- 1450 Elevation contour (interval: 10 m)  
 752 Secondary highway with number  
 Gravel road, dry weather  
 Trail or cut line  
 MAIM Permit boundary  
 CS05-01 Drill hole location



Scale: 1:10,000

GRAYMONT WESTERN CANADA INC.

DAHROUGE GEOLOGICAL CONSULTING LTD.  
 Edmonton, Alberta

CLEARWATER RANGE, WEST-CENTRAL ALBERTA

Fig. 5.1  
 Location of the 2005 Drill Holes  
 at Corkscrew Mountain