

DIAMOND DRILL



42A06NW0222 19 OGDEN

010

TOWNSHIP: Ogden

REPORT No.: 19

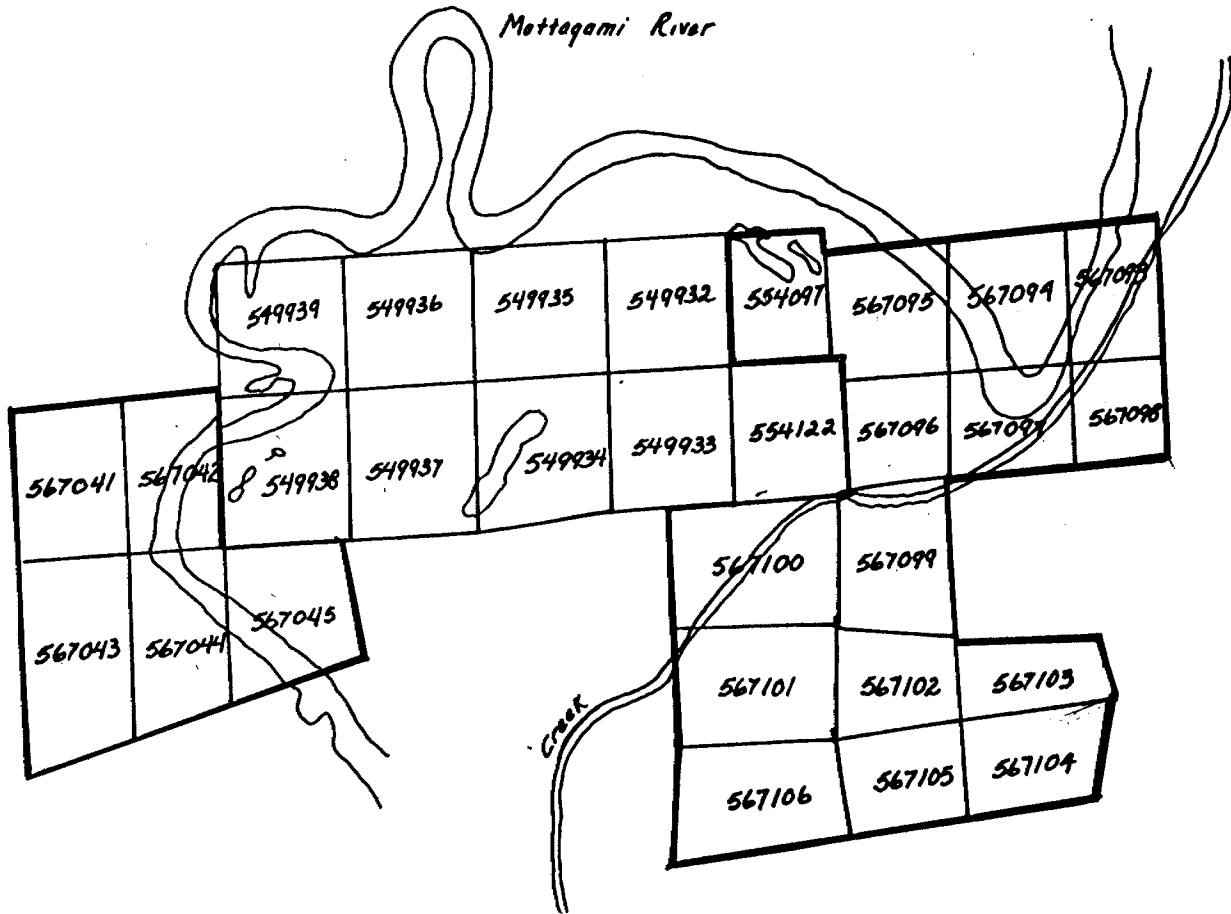
WORK PERFORMED BY: Amax Minerals Exploration

<u>CLAIM No.</u>	<u>HOLE No.</u>	<u>FOOTAGE</u>	<u>DATE</u>	<u>NOTE</u>
P 549933	1043-01-1	123.1 m	Oct/80	(1)
P 554076	1043-03-1	150.0 m	Nov/80	(2)
P 549498	1043-03-1	165.0 m	Oct/80	(3)

NOTES: (1) #32-81  
(2) #33-81  
(3) #34-81



# 32-8  
OGDEN TWP.



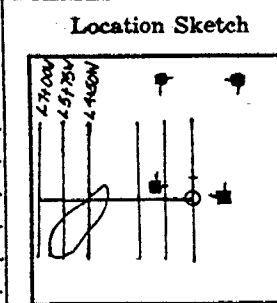
CLAIM SKETCH  
1043-01, Ogden-1  
Scale: 1:30,000

*J. Moore Peterson*

**AMAX MINERALS EXPLORATION**  
(A Division of Amax of Canada Limited)  
**DIAMOND DRILL RECORD**

Hole No. 1043-01-1

Hole No. <u>1043-01-1</u> Sheet <u>1</u>	Length <u>123.10m</u>	Commenced <u>October 31, 1980</u>	Dip: Collar <u>-50° N</u>
Property <u>1043-01; Ogden-1</u>	Bearing <u>0°</u>	Completed <u>November 3, 1980</u>	Etch Test <u>1</u> Depth <u>123.10m</u> Rdg. <u>-58½°</u> True <u>-50°</u>
Township <u>Ogden</u>	Dip <u>-50° N</u>	Drilling Co. <u>St-Lambert</u>	
Location <u>At intersection of BL and L-0</u>	Objective <u>To test ground geo-physical conductor.</u>	Core Size <u>BQ</u>	
Logged By <u>J. MacPherson</u>		Casing Left/Lost in Hole <u>220 feet</u>	
Core Location <u>Timmins</u>			



Claim No. 549933

Scale: 1:30,000

Remarks \_\_\_\_\_

Footage metres		DESCRIPTION
From	To	
0	57.0	OVERBURDEN
57.0	58.30	INTERMEDIATE TUFF
58.30	68.20	RHYODACITE
68.20	68.60	UNDIFFERENTIATED SEDIMENT
68.60	69.60	GRAPHITIC BEDS
69.60	71.25	ULTRAMAFIC FLOW
71.25	74.85	INTERBEDDED GRAPHITE AND ARGILLITE
74.85	81.95	INTERBEDDED ARGILLITE AND MUDSTONE
81.95	86.90	INTERBEDDED GRAPHITE AND ARGILLITE
86.90	95.80	INTERBEDDED TUFF, MUDSTONE AND ARGILLITE
95.80	100.20	TUFF WITH INTERBEDDED SEDIMENTS
100.20	104.80	INTERMEDIATE TUFF
104.80	116.20	INTERBEDDED TUFF, ARGILLITE, MUDSTONE
116.20	123.10	MUDSTONE
	123.10	END OF HOLE

*J. MacPherson*

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**DIAMOND DRILL RECORD**

Hole No. 1043-01-1  
Sheet No. 2

Footage metres		DESCRIPTION
From	To	
0	57.0	OVERBURDEN
57.0	58.30	INTERMEDIATE TUFF
		Felsic fragments, angular to sub-angular. Average size is 3-5mm. It is massive and the texture faintly resembles that of an intrusive. Pyrite is present in amounts <<1%. Rock shows no carbonate veining or pervasive alteration.
		57.50 to 57.55 : Narrow quartz veinlet.
58.30	68.20	RHYODACITE
		Rhyodacitic flow. Rock is fine-grained and siliceous, although the amount of silica may vary over the 10 metre length. Rock shows some sign of flow banding. In spots the rhyodacite is broken up into breccia by intruding quartz veinlets, most notably at 66.0 to 66.7 and 63.40 to 63.70. There may be minor carbonate associated with those veinlets. Mineralization in the rhyodacite consists of disseminated to subhedral pyrite in amounts up to 5% with minor pyrrhotite and possibly chalcopyrite. Flow banding is at 64° to core axis at 66.45m.
68.20	68.60	UNDIFFERENTIATED SEDIMENT
		Unidentified sediment, intruded by quartz vein. Small amounts of the sediment are present in the quartz vein, and this is all highly altered. Sediment was once graphitic, as there is graphite in with the quartz. This also may have been a chert/graphite horizon. Pyrite is present as cubes and blebs or also as disseminations throughout the rock in amounts up to 10%.
68.60	69.60	GRAPHITIC BEDS
		Graphite bed with pyrite. Breakdown of rock is 90% graphite, 10% pyrite. Rock is up to 90% conductive over a 15cm length. Pyrite is present as well-formed cubes as well as blebs. Bedding at 68.70m, is 33° to core axis. Foliation at 68.75m, is 140 to core axis.

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Hole No. 1043-01-1  
Sheet No. 3

Footage metres		DESCRIPTION
From	To	
69.60	71.25	ULTRAMAFIC FLOW
		Highly altered ultramafic flow. Talc-sericite alteration is abundant. Very minor carbonatization restricted to narrow veinlets is also present. Pyrite is present in the rock in amounts up to 10%. No other mineralization present.
		Foliation at 70.50 m is 13° to core axis.
71.25	74.85	INTERBEDDED GRAPHITE AND ARGILLITE
		Interbedded argillite and graphite beds. There is both good bedding and foliation present. Beds are narrow and quite convoluted in some areas. This could be due to slumping of the beds but is most likely due to drag folding on the limbs of a larger anticlinal structure the hole has been drilled through. The graphitic beds vary from 20% to 90% conductive. Pyrite is present, usually associated with the graphite. It is also found as blebs up to 1cm in size which are contained in narrow convoluted felsic "beds" (mainly siliceous, little or no carbonate). Structure is quite complex and includes the drag folds mentioned above. These folds are usually represented by the felsic beds.
		Bedding at 76.95 metres is 66° to core axis. Bedding at 78.45 metres is 60° to core axis.
		Foliation at 72.55 metres is 90° to core axis.
74.85	81.95	INTERBEDDED ARGILLITE AND MUDSTONE
		Interbedded argillite and fine-grained mudstone. Pyrite occurs as finely disseminated grains in beds up to 1cm thick. Minor graphite may also be present. Beds are evenly layered but there may be the occasional drag fold or pinching out of a bed due to remobilization.
		Bedding at 78.85 metres, is 75° to core axis. Bedding at 80.40 metres, is 90° to core axis.

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Hole No. 1043-01-1  
Sheet No. 4

Footage metres		DESCRIPTION
From	To	
74.85	81.95	(Cont.) Foliation at 78.95 metres is 0° to core axis. Foliation at 80.55 metres is 35° to core axis.
		From 80.85 to 81.75: Core contains nose of a fold, fairly tight, nearly isoclinal. Axis of fold appears to be at about 20° to core axis. Axial plane cleavage is present, as well as numerous small drag folds. The mudstone and argillite beds are highly convoluted but the nose of the fold is clearly visible in the core. Foliation dips much more steeply than the bedding.
81.95	86.90	<b>INTERBEDDED GRAPHITE AND ARGILLITE</b>
		Interbedded graphite and argillite, graphite making up 75% of the rock. Beds are narrow and graphite is 20-90% conductive. From 85.85 to 86.80, pyrite is present in amounts up to 70%. It is contained in felsic material (siliceous, no carbonate) and in some spots the pyrite is brecciated by this felsic material. Pyrite is conductive up to 80%. Bedding of argillite and graphite is quite uniform and beds are generally no more than 1cm thick. At 86.50 the pyrite is present as narrow beds with the siliceous material and graphite. Beds here are quite thin, <<2mm.
		Bedding at 83.45 is 50° to core axis. Bedding at 86.50 is 85° to core axis.
		NOTE: Although beds are generally uniform, there are parts of core which contain convoluted beds.
86.90	95.80	<b>INTERBEDDED TUFF, MUDSTONE AND ARGILLITE</b>
		86.90 - 88.10: Interbedded argillite and mudstone. Mudstone is the most dominant and the beds are 1cm to 7cm thick. The rock is grey and very fine-grained and contains very little carbonate. It may contain pyrite in small amounts (<<1%). The argillite is black and is slightly more coarse-grained than the mudstone.

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Hole No. 1043-01-1  
Sheet No. 5

Footage metres		DESCRIPTION
From	To	
86.90	95.80	(Cont.) The beds are much thinner, usually less than 1cm thick. Bedding, at 87.50 metres is 80° to the core axis.
		88.10 - 88.40: Intermediate tuff. Matrix is fine-grained and greyish-black. Fragments are quite small and are often replaced by silica and lesser amounts of carbonate. Pyrite is present as small blebs or in narrow beds and makes up about 3% of the rock.
		88.40 - 90.95: Interbedded argillite and mudstone, same as from 86.90 - 88.10. More pyrite present here, both in disseminated form in beds and also as blebs. Also present are small drag folds (most notably in the argillite), and what appears to be axial plane cleavage due to the fold mapped further up the hole. Bedding at 89.30 metres is 48° to core axis. Axial plane cleavage at 45° to core axis, but at 90° to bedding.
		90.95: Interbedded tuff, argillite and mudstone as per above descriptions of the individual units above. Pyrite present as well-formed cubes <5mm in size, or as fine disseminations in beds, or as massive blebs. Note that where axial plane cleavage is visible, the small fractures are often filled with a material consisting of ~ 95% silica and 5% carbonate.
		91.10: a quartz carbonate vein, about 7cm wide. No visible mineralization associated with it. Bedding at 91.40 metres, is 71° to core axis. Bedding at 92.50 metres, is 60° to core axis.
		NOTE: Local slumping occurs in the argillite beds.

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Hole No. 1043-01-1  
Sheet No. 6

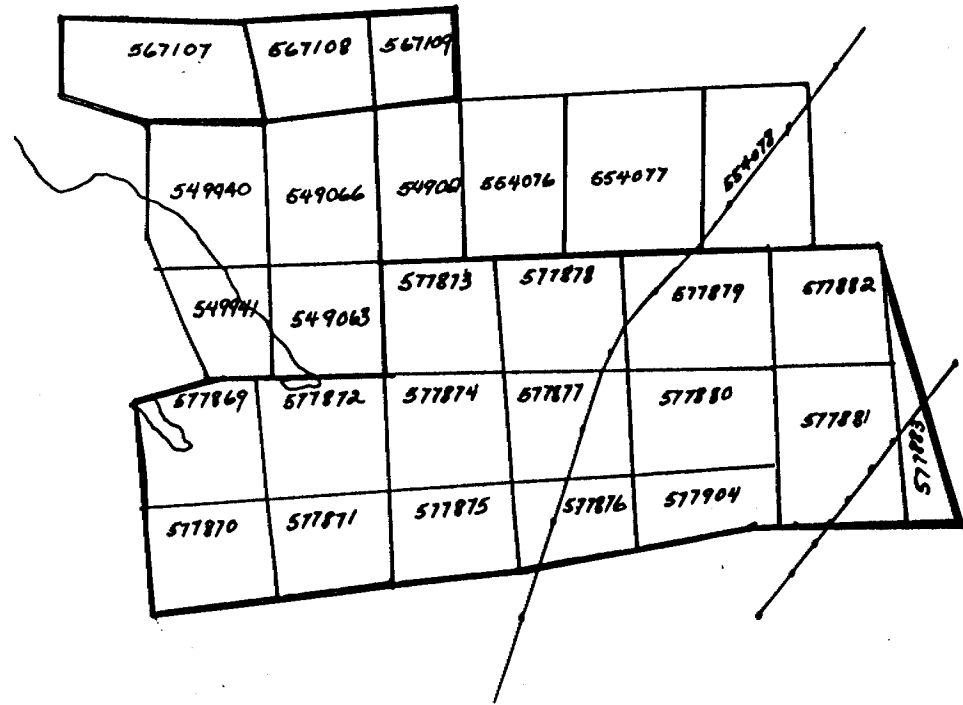
Footage metres		DESCRIPTION
From	To	
95.80	100.20	TUFF WITH INTERBEDDED SEDIMENTS
		Tuff with interbeds of argillite. Argillite beds are thin and rock is black and fine-grained. Pyrite may be present in amounts up to 5%. The beds show some sign of local slumping. The tuff is intermediate and contains felsic fragments which are stretched parallel to the bedding. The fragments are usually less than ½cm long. They are felsic (mainly quartz, minor carbonate). The tuff matrix is very well-banded and contacts with the argillite beds above and below are sharp. Pyrite is present in amounts up to 10% locally. The rock is cut by quartz-carbonate veinlets, the most notable of which are at 99.0 (about 4cm wide) and at 99.8m (about 10cm wide). Neither contain visible mineralization and carbonate makes up about 40% of the vein in each case.
		Bedding: at 98.60 metres, is 72° to core axis.
100.20	104.80	INTERMEDIATE TUFF
		Intermediate tuff. Matrix is fine-grained, greyish in colour and moderately to well-banded. The fragments are felsic and quite small (<½cm long) and are often stretched parallel to the bedding. Pyrite is present as fine disseminations or also as subhedral crystals. Amount is ~ 3%.
		99.25 - 99.40: Pyrite-rich section. Pyrite makes up to 60% of the rock. It occurs as massive blebs.
		99.80 - 99.00: Quartz-carbonate vein. No visible mineralization. Carbonate makes up about 30% of vein.
		102.0 - 102.45: Quartz carbonate veinlet, same description as above. Here the country rock is present as inclusions in part of the vein.
		Bedding: at 102.60m is 70° to core axis.
		Bedding: at 104.50m is 72° to core axis.





# 33-81

OGDEN TWP.



— Area over which Diamond Drill Hole credit is applied

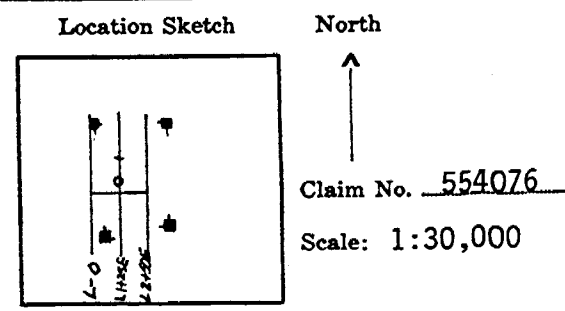
CLAIM SKETCH  
1043-02, Ogden-2  
Scale: 1:30,000

*J. A. MacPherson*

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**DIAMOND DRILL RECORD**

Hole No. 1043-02-1

Hole No. <u>1043-02-1</u> Sheet <u>1</u>	Length <u>150 metres</u>	Commenced <u>November 5, 1980</u>	Dip: Collar <u>-50°N</u>
Property <u>1043-02; Ogden-2</u>	Bearing <u>0°</u>	Completed <u>November 11, 1980</u>	Etch Test      Depth      Rdg.      True
Township <u>Ogden</u>	Dip <u>-50°</u>	Drilling Co. <u>St-Lambert</u>	<u>1</u> <u>150m</u> <u>-57°</u> <u>-48°</u>
Location <u>L 125 E; O+50N</u>	Objective <u>To test ground geo-physical conductor.</u>	Core Size <u>BQ</u>	
Logged By <u>J. MacPherson</u>		Casing Left/Lost in Hole <u>20 feet</u>	
Core Location <u>Timmins</u>			



Remarks \_\_\_\_\_

Footage metres		DESCRIPTION
From	To	
0	30.50	OVERBURDEN
30.50	32.70	UNDIFFERENTIATED SEDIMENT
32.70	33.20	CHERTY SEDIMENT
33.20	40.90	INTERBEDDED SEDIMENT BRECCIA AND MUDSTONE
40.90	57.15	SILICEOUS SEDIMENT
57.15	58.70	ARGILLITE
58.70	68.00	CHERTY SEDIMENT
68.00	78.40	GRAPHITIC HORIZON
78.40	79.30	SEDIMENT BRECCIA
79.30	80.30	INTERBEDDED GREY AND WHITE CHERT BEDS
80.30	82.05	PYRITE/GRAPHITE HORIZON
82.05	82.70	INTERLAYERED WHITE AND GREY CHERT
82.70	123.10	SEDIMENT BRECCIA
123.10	125.20	MUDSTONE

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Hole No. 1043-02-1  
Sheet No. 3

Footage metres		DESCRIPTION
From	To	
0	30.50	OVERBURDEN
30.50	32.70	UNDIFFERENTIATED SEDIMENT
		Very fine-grained undifferentiated sediment. Rock is greenish-grey and is siliceous (Si = 40%). Darker parallel bands (very narrow) may indicate some type of bedding.
		32.00: a 10cm wide band of breccia - the matrix appears to be the fine-grained sediment, and the fragments are slightly more siliceous
		Minor pyrite is present in the sediment in amounts <<1%. Down hole the rock gets less felsic and could be due to contamination. The dividing line between the mafic and more felsic rock appears to be the 10cm wide band of breccia mentioned above.
32.70	33.20	CHERTY SEDIMENT
		Very siliceous rock, showing banding. Rock is very hard yet brittle. Most likely an interflow cherty sediment bed. Rock is highly fractured and the fractures are filled with a light green mineral. The chert is tainted reddish in spots. Along certain fractures a yellow grainy mineral is present.
33.20	40.90	INTERBEDDED SEDIMENT BRECCIA AND MUDSTONE
		Sediment breccia, interlayered and with mudstone.
		33.20-36.25: Sediment breccia. Fragments make up to 80% of the rock in places, although this is not consistent in the whole section. The fragments are slightly more siliceous than the matrix. The matrix is possibly a mudstone - type. It is very fine-grained and is greenish-grey.
		The places where the fragments are few show good bedding - very fine laminations are the most common. The fragments are varied in size and some are stretched parallel to the fine laminations mentioned above.

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**DIAMOND DRILL RECORD**

Hole No. 1043-02-1  
Sheet No. 4

Footage metres		DESCRIPTION
From	To	
33.20	40.90	(Cont.) 36.25 - 37.55: mudstone, finely laminated, with a few felsic fragments scattered throughout the rock. Rock is quite soft. Pyrite is present in only very small amounts (<<1%).
		37.55 - 38.85: sediment breccia. There are brecciated 'layers' possibly originally a slightly more incompetent bed within the mudstone that was brecciated under pressure. The mudstone did not fragment due to lower silica content and better competency. (The 'mudstone' may actually be a very fine-grained greywacke.)
		38.85 - 39.20: fine-grained greywacke, greyish-black, massive to slightly bedded. Pyrite present in amounts up to 5%. Very slight pervasive carbonatization present.
		39.20 - 40.90: fine-grained, finely laminated mudstone, greyish-green. It contains a few siliceous fragments. Some of the beds show signs of slumping. Very little carbonate present.
		Bedding: at 39.65 metres, is 40° to core axis. Bedding: at 40.50 metres, is 45° to core axis.
40.90	57.15	<b>SILICEOUS SEDIMENT</b>
		Very siliceous sediment, well bedded. Rock is extremely hard and brittle and is very fine-grained. Bedding is represented by layers of chert with layers of less siliceous material (looks like a mudstone, very highly silicified). Jasper beds are also present, but in less abundance than the chert or contaminated chert horizons.
		The bedding is quite uniform, with the average thickness of the bed being about 2cm. In some spots the rock is fractured and these fractures are filled with silica. Pyrite is present in the siliceous rocks. It occurs either as finely disseminated grains or as well-formed cubes. Amount is 5%. Magnetite also present in very thin beds.

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Hole No. 1043-02-1  
Sheet No. 5

Footage metres		DESCRIPTION
From	To	
40.90	57.15	(Cont.) 42.55 - 43.35: intermediate tuff, well-layered, with siliceous fragments. Contacts with the chert are sharp down-hole and gradual uphole. Pyrite beds present in the tuff.  Bedding: at 41.35m, is 36° to core axis. at 42.80m, is 60° to core axis. at 45.80m, is 45° to core axis. at 48.80m, is 50° to core axis. at 51.85m, is 49° to core axis. at 54.90m, is 46° to core axis.
57.15	58.70	ARGILLITE  Bed of argillite, black, fine-grained, cut by the occasional quartz veinlet. No carbonatization, very little pyrite in the rock.
58.70	68.00	CHERTY SEDIMENT  Same as from 40.90 to 57.15  at 63.45: thin bed of pyrite in argillite, conductive up to 70%. Bed is about 2cm wide.  Bedding: at 61.00m, is 36° to core axis. at 64.5m, is 45° to core axis.  Nature of rock has changed to alternating beds of white and grey chert averaging about 1cm thick. Small fractures subsequently filled with silica cut this section.  at 65.25: a 2cm wide band of pyrite, conductive up to 70%.  Further down the hole, the greyish layers almost all have pyrite interbeds or cubic pyrite associated with them.

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**DIAMOND DRILL RECORD**

Hole No. 1043-02-1  
Sheet No. 6

Footage metres		DESCRIPTION
From	To	
68.00	78.40	GRAPHITIC HORIZON
		Conductive zone.
		From 68.00 to 68.20, pyrite and graphite are present. Conductive up to 100%: Pyrite - 65% and Graphite - 35%.
		General: The rock consists of alternating beds of chert and pyritic beds. The pyrite is contained in the greyish chert beds and may make up to 80% of the bed. These beds are up to 90% conductive. The greyish beds with the pyrite are narrower than the white chert (about 3cm maximum). The rock is fractured and the fractures are filled with a greyish material. The rock is slightly carbonated (<3%).
		Bedding: at 68.20 metres is 62° to core axis.
78.40	79.30	SEDIMENT BRECCIA
		Fragments consist of the yellowish-white chert and the matrix is the greyish chert. Fragments are angular to sub-rounded and are of varying sizes. The remnants of the beds are convoluted and some slumping is evident. Pyrite is present as massive blebs or sub-hedral cubes in amounts of up to 5%.
79.30	80.30	INTERBEDDED GREY AND WHITE CHERT BEDS
		Interbedded grey and white chert beds. Minor pyrite is present.
		Bedding: at 79.30 metres is 45° to core axis.
80.30	82.05	PYRITE/GRAPHITE HORIZON
		Conductive zone.
		80.30 - 81.20: Massive pyrite, 100% conductive, with narrow veinlets of siliceous material.



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**DIAMOND DRILL RECORD**

Hole No. 1043-02-1  
Sheet No. 7

Footage metres		DESCRIPTION
From	To	
80.30	82.05	(Cont.) 81.20 - 82.05: Graphite and pyrite, 100% conductive, interlayered with the grey chert. Local slumping of the beds is visible. Sediment breccia at 81.20 - 81.40.
82.05	82.70	INTERLAYERED WHITE AND GREY CHERT  Interlayered white and grey chert, with very minor pyrite. This grades into the sediment breccia.  Bedding: at 82.45 metres, is 45° to core axis.
82.70	123.10	SEDIMENT BRECCIA  Both fragments and matrix are chert. The fragmented rock is generally the white chert and the matrix is the grey chert. In spots it appears that the grey chert has flowed into and around the white chert fragments. Pyrite is present both massive and as well-formed cubes in amounts up to 15%. Where the pyrite is massive, it is conductive up to 80%. The fragments vary greatly in size and are angular to sub-rounded. The pyrite is rarely found in the fragments; it is most common in the greyish chert. There are still some signs of original bedding left. Bedding: at 86.40 metres, is 44° to core axis.  The pyrite is also found as well-formed cubes. These are present mainly in the sections which show the least signs of brecciation (ie, in the areas where good original bedding is still present).  Pyrite: about 20%.  Graphite is also present in narrow beds up to 3cm wide. These show little or no sign of brecciation. The beds may contain anhedral to subhedral pyrite in amounts up to 5%, generally much less than the pyrite percentage in the sediment breccia. Graphitic beds are 70-100% conductive.

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Hole No. 1043-02-1  
Sheet No. 8

Footage meters			DESCRIPTION
From	To		
82.70	123.10	(Cont.)	At 101.0 metres, the pyritic and graphitic section of the breccia ends and from here the rock is barren or has less than 1% pyrite in it. The fragments are all of chert and are subrounded to rounded. They are contained in a greyish matrix (fine-grained) of mudstone. This is much softer than the fragments, as well as being slightly darker in colour. Fragment size varies from <0.5 cm up to 4cm. The fragments are often longer in one dimension and they usually layer in this fashion, more or less parallel to the bedding of the mudstone. This varies a lot and so an accurate reading of the angle of beds to the core axis is not possible.  Near the bottom of the breccia section the fragments become much smaller and more numerous.
123.10	125.20	MUDSTONE	Mudstone, moderately bedded, greyish in colour, fine-grained. It contains a few stretched fragments aligned parallel to bedding.  Bedding: at 124.3 metres, is 43° to core axis.
125.20	126.70	GRAPHITE	Graphite beds with minor pyrite. Graphite: 95% Pyrite: 5% Beds are massive and 100% conductive. Contact with mudstone is sharp.
126.70	127.40	UNDIFFERENTIATED SEDIMENT	Undifferentiated sediment with pyrite. Rock is light grey and medium to fine-grained. Pyrite makes up 20% of the rock.
127.40	128.90	GRAPHITE	Graphite beds, as per 125.20 to 126.70

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Hole No. 1043-02-1  
Sheet No. 9

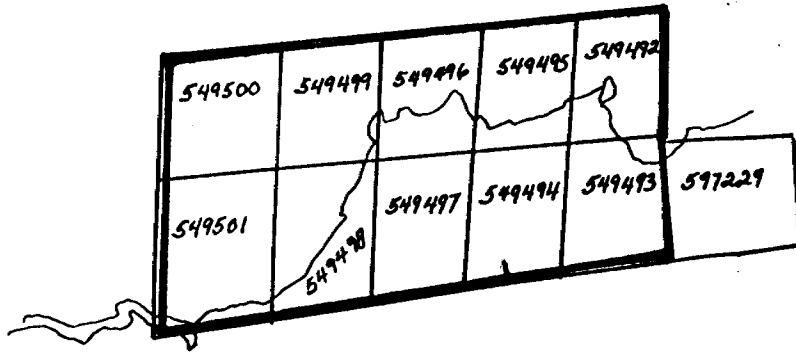
Footage metres		DESCRIPTION
From	To	
128.90	131.60	GREYWACKE  Greywacke, fine-grained, moderately bedded. Carbonate present as small pods and also in narrow veinlets as well as pervasively throughout the section. Pyrite is present, disseminated throughout the rock (about 15%).
131.60	131.90	GRAPHITE  Graphitic bed, as per 125.20 to 126.70.
131.90	134.00	SILICEOUS SEDIMENT  Siliceous sediment (about 60% SiO <sub>2</sub> ) with carbonate blebs and pyrite (about 5%). Rock is massive to weakly bedded. Quartz veinlet at 134.00 metres.
134.00	137.35	GREYWACKE  Greywacke, fine-grained, moderately bedded. Carbonatization is pervasive in rock (carbonate about 25%). Quartz carbonate veinlets also present. Pyrite is present in amounts up to 10%.  Bedding: at 136.50 metres, is 44° to core axis.
137.35	138.55	SEDIMENT BRECCIA  Sediment breccia. Clasts are of greywacke and matrix is chert with minor graphite (conductive up to 50%). Clasts are quite large (up to 8cm) and are sub-rounded to angular.
138.55	143.90	MUDSTONE  Well-bedded mudstone with alternating layers of green and white material. Pods of pyrite <1cm wide are present as well as narrow sulphide veinlets (pyrite, <<pyrrhotite). Carbonatization is pervasive throughout the rock.  Bedding: at 139.6 metres, is 40° to core axis. at 142.1 metres, is 44° to core axis.



#34-81

OGDEN TWP  
DELORO TWP.

3M-



2M-

Area over which  
diamond drill hole  
credit is applied

CLAIM SKETCH  
1043-03, Ogden-3  
Scale: 1:30,000

*J. A. Moore Peterson*

**AMAX MINERALS EXPLORATION**  
(A Division of Amax of Canada Limited)  
**DIAMOND DRILL RECORD**

Hole No 1043-03-1

Hole No. 1043-03-1 Sheet 1  
 Property 1043-03; Ogden-3  
 Township Ogden  
 Location L 125W, 192N.  
 Logged By J. MacPherson  
 Core Location Timmins

Length 165 metres  
 Bearing 180°  
 Dip -50°  
 Objective To test ground geo-physical conductor.

Commenced October 27, 1980  
 Completed October 30, 1980  
 Drilling Co. St-Lambert  
 Core Size BQ  
 Casing Left/Lost in Hole None

Dip: Collar -50° N  
 Etch Test      Depth      Rdg.      True  
1      165m      55°      46°

Location Sketch

North ↑

Claim No. 549498  
 Scale: 1:30,000

Remarks \_\_\_\_\_

Footage metres		DESCRIPTION
From	To	
0	30.50	OVERBURDEN
30.50	44.37	GREYWACKE
44.37	45.74	SILICIFIED GREYWACKE OR DACITE
45.74	65.20	GREYWACKE
65.20	66.77	ANDESITE
66.77	75.55	GREYWACKE
75.55	85.30	IRON FORMATION
85.30	98.30	INTERBEDDED ARGILLITE AND MUDSTONE
98.30	101.50	INTERBEDDED CHERT AND GRAPHITE
101.50	113.00	SILICEOUS MUDSTONE
113.00	124.95	IRON FORMATION
124.95	128.40	GREYWACKE
128.40	129.20	INTERBEDDED GRAPHITE AND CHERT
129.20	135.10	INTERBEDDED CHERT AND ARGILLITE

*J. A. MacPherson*



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**DIAMOND DRILL RECORD**

Hole No. 1043-03-1  
Sheet No. 3

Footage metres		DESCRIPTION
From	To	
0	30.50	OVERBURDEN
30.50	44.37	GREYWACKE
		Rock is fine-grained, well-bedded and grey in colour. Beds are thin, generally less than 1cm wide and consist of alternating bands of black material (very narrow; less than 1mm) and more felsic (siliceous) material. Rock is cut by a number of cross-cutting quartz-carbonate veinlets, totalling about 2% of rock. Rock and veinlets are totally barren of any kind of mineralization. Carbonate is present throughout the rock in amounts up to 5% - this is pervasive and does not include carbonate veinlets.
		Bedding at 30.50 metres is 40° to core axis. Bedding at 33.40 metres is 38° to core axis. Bedding at 38.30 metres is 43° to core axis.
		NOTE: quartz-carbonate veinlets are generally concordant with the bedding.
44.37	45.74	SILICIFIED GREYWACKE OR DACITE
		Silicified greywacke or possibly a dacite. Rock is well-banded and is cut by quartz-carbonate veinlets which are more or less parallel with the banding in the rock. Rock is carbonated throughout (up to 5%) and contains about 1% pyrite.
		Banding is at 45° to the core axis at 44.50 metres.
45.74	65.20	GREYWACKE
		Fine-grained, massive to slightly bedded, greywacke. Carbonate in rock (besides quartz-carbonate veinlets) up to 5%. At 47 metres: narrow quartz-carbonate veinlet with iron staining (approximately 3cm wide). At 51.97 metres: quartz veinlet 2cm wide. Bedding is at 46° to core axis at 51.40 metres.



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Hole No. 1043-03-1  
Sheet No. 4

Footage metres		DESCRIPTION
From	To	
45.74	65.20	(Cont.) Between 52.40 and 53.50, the rock is cut by numerous quartz-carbonate veinlets in amounts up to 10%. In some spots the rock has been brecciated. No visible mineralization. Small blebs of carbonate are common from 61.0 to 64.60 metres. Carbonate content here is approximately 10%, but not as veinlets.
65.20	66.77	<b>ANDESITE</b>  Andesite, fine-grained, chloritized, with pervasive carbonatization up to about 10%. Rock is structureless. Chlorite makes up about 25% of rock. Contact with the sediments above and below it is fairly sharp.
66.77	75.55	<b>GREYWACKE</b>  Greywacke, moderately bedded and fine-grained. Quartz-carbonate veinlets make up about 2% of rock and carbonate is also present in amounts up to 5% of the rock. No visible mineralization.  At 69.55 metres: quartz-carbonate veinlet about 3cm wide and more or less parallel to bedding.  At 73.20 metres: quartz-carbonate veinlet, 1cm wide, with reddish iron staining.  Bedding at 68.40 metres, is 30° to core axis. Bedding at 72.40 metres, is 35° to core axis. Bedding at 70.30 metres, is 39° to core axis.
75.55	85.30	<b>IRON FORMATION</b>  Banded iron formation. Rock is very well-bedded and consists of alternating bands of magnetite, chert and jasper (the last in lesser amounts). Magnetite beds may reach a maximum thickness of 2cm and are relatively uniform in width. The magnetite is sugary and very fine-grained.

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Hole No. 1043-03-1  
Sheet No. 5

Footage metres		DESCRIPTION
From	To	
75.55	85.30	(Cont.) Cherty beds vary in thickness from <1cm to 15 cm. It is grey to white and shows very fine internal bedding, individual beds being <1mm thick. Note the greyish chert is the one that is generally associated with the magnetite. The jasper beds are found between 76.80 and 78.60 metres. These beds vary in width from ½cm up to 4cm. They also show fine internal laminations or bedding.
		81.45 to 81.65: section of core which consists of alternating layers of green light grey and black beds. Possibly it may be a thin bed of mudstone or siltstone at 81.58. Black material is magnetite, grey material is chert, green material is chloritic beds. Chloritic beds contain perfect pyrite cubes up to ½cm in size. Chloritic beds probably were once mudstone. Quartz-carbonate veining is rare, and when present it is in the less siliceous part of the iron formation as fracture fillings.
		at 80.50: quartz-veinlet 4cm thick. No visible mineralization. It fills a fracture which cuts the beds of the iron formation at about 90°. Amount of carbonate in rock is less than 0.5%.
		Structure: the beds may show local signs of slumping but overall the bedding shows little sign of deformation.
		Small shears are cross-cutting some beds and displacement is usually <2cm.
		Mineralization: Magnetite is present in amounts between 30 and 45%. Depending on the purity of the magnetite beds, conductivity varies from 10 to 100%. Pyrite is present as well-formed cubes in the mudstone and is also well-layered, with the magnetite in some spots. It also occurs as massive blebs. The layered pyrite is conductive up to 10%. Total amount of pyrite is ~10%.

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Hole No. 1043-03-1  
Sheet No. 6

Footage metres		D E S C R I P T I O N
From	To	
75.55	85.30	(Cont.) Chalcopyrite is present in amounts <1% in most of the iron formation. It is usually found as tiny blebs in the magnetite beds.  Bedding: at 75.80 metres is 50° to core axis. at 78.30 metres is 45° to core axis. at 81.35 metres is 43° to core axis. at 84.40 metres is 45° to core axis.
85.30	98.30	<b>INTERBEDDED ARGILLITE AND MUDSTONE</b>  Interbedded argillite and mudstone siltstone. Beds are generally very thin, <½cm. Some sections of the rock are silicified to a high degree.  Quartz at 89.00 metres and 89.9 metres. Both sections are about 8cm wide. Quartz is sugary and there is no visible associated mineralization.  Small blebs of carbonate are visible throughout a good part of the core. These are interpreted to be replacement features. In spots these blebs make up to 90% of the rock. Pyrite makes up to 2% of rock.  Bedding at 93.55 metres, is 45° to core axis. Bedding at 87.45 metres, is 38° to core axis.
98.30	101.50	<b>INTERBEDDED CHERT AND GRAPHITE</b>  Interbedded chert and graphite; graphite is greyish and 100% conductive. Beds are roughly uniform in thickness, with the chert beds being slightly wider. Pyrite is present in amounts up to 10%. Bedding at 98.40 metres, is 52° to core axis. Also minor magnetite is present in amounts up to 2%. Bedding at 99.65 metres, is 51° to core axis.

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Hole No. 1043-03-1  
Sheet No. 7

Footage metres		DESCRIPTION
From	To	
101.50	113.00	SILICEOUS MUDSTONE
		Siliceous mudstone or greywacke. Rock is too siliceous to be a true mudstone. It is fine-grained, and grey-green. Carbonate pods are stretched parallel to the bedding and make up to 5% of the rock. Rock is moderately to well-bedded. Carbonate pods are probably replacement features.
		Bedding: at 102.70 metres is 57° to core axis. Bedding at 105.75 metres is 57° to core axis.
113.00	124.95	IRON FORMATION
		Iron formation; chert and magnetite interbedded. Also minor jasper present. Magnetite beds vary in thickness, up to 2cm maximum. Magnetite beds non-conductive. Massive pyrite is present in some sections of core, notably at 120.40m in amounts up to 60%. It is 100% conductive. The magnetite beds are not conductive. Pyrite may also occur in cross-cutting veinlets, notably around 122.80 metres. Pyrrhotite is also present in amounts up to 2%.
		121.60 to 122.90: section of iron formation; Highly silicified (and carbonatized up to 1%) and highly brecciated as well. It is in this area that the pyrite veinlets occur. The core here is generally silicified, and it is also cross-cut by narrow quartz-carbonate veinlets.
		Other sections of this iron formation also have narrow cross-cutting quartz-carbonate veinlets.
		Bedding at 121.60 metres, is 60° to core axis. Bedding at 115.00 metres, is 62° to core axis.
124.95	128.40	GREYWACKE
		Fine-grained greywacke, weakly bedded. Rock is nearly featureless but shows pervasive carbonatization in amounts up to 10%.

