NiMo PROJECT

PROPERTY: EL

HOLE: EL07-05

Easting	Northing	Elev.	Depth (m)
460793	7305062	314	109.73

Contractor: North Star
Drill: MD-001

Core size: BTW
Casing depth: 9.14 (m) out

Drilling dates: June 15 to 18, 2007

Logged by: D. MacDonald

SURVEY

Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	030°	-76°	compass				

Target: NiMo horizon west of EL07-04

SUMMARY

From (m)	To (m)	Interval	Unit	Comments
0.00	10.72	10.72	OVB	
10.72	71.37	60.65	DME	
71.37	71.51	0.14	NiMo	
71.51	109.73	38.22	OSR	

SAMPLES

Numbers: C385331 - C385346

Total: 16
Date sent: June 24, 2007

COMMENTS

PROPERTY: EL

HOLE: EL-07-05

Struct.		LITHOLOGY								ALT.			MINERALS				SAMPLES							Blocks			GEOTECHNICAL						JOINTS				
																											REC		RQD								
Type	Attitude	From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:				Fe	Ca	Py	Cp	From (m)	To (m)	Interval (m)	Sample	Ni (ppm)	Zn (ppm)	Mo (ppm)	From (m)	To (m)	Intvl. (m)	(m)	Percent	(m)	Percent	Weathering	Hardness	Frequency	Attitude	Shape	Roughness	Infilling
		0.00	10.72	10.72	OVB																																
BD	80	10.72	52.30	41.58	SHL	DME	EA	BK	Black shale, highly altered & crumbly to touch, very earthy smell, absorbs water readily; poorly visible thin laminae	X														10.72	12.19	1.47	1.47	100	1.05	71	FR	VW	2	30	5	5	Qz
																								12.19	15.24	3.05	2.25	74	1.38	45	FR	VW	2	30	5	5	Qz
																								15.24	18.28	3.04	2.05	67	0.47	15	FR	VW	3	30	5	5	Qz
VT	0/90				SHL		LA	BK	16.13 - 16.37 Pervasive, highly altered with altered calcite veinlets < 1mm diam. Both parallel and perpendicular to bedding.	X				+																							
					SHL		LS	BK	16.63 - 16.68 Fe-hydroxide-rich layer 5 cm thick	X			+																								
VT	80				SHL			BK	17.25 - 17.48 Black shale becomes more competent, with abundant (10%) calcite veinlets < 1mm wide, wavy laminated, parallel to bedding; rare nodules Fe-hydroxide (2 mm diam); rare calcite veinlets @ 70 degrees to BD	S			+	+										18.28	21.35	3.07	2.65	86	1.27	41	FR	MS	2	10	2	2	Qz
VT	80				SHL			BK	17.99 - 18.04 Fe-oxide-rich veinlet 0.5 mm diam parallel to BD	M			+																								
BD	80				SHL			BK	18.28 - 18.29 vfg pyrite + chalcopyrite both disseminated and in small lenses < 3 mm thick						+	+																					
VT	VAR				SHL		LA	BK	18.29 - 20.65 Black shale interbedded lighter and darker, fine laminae; abundant veinlets of vfg Fe-hydroxide (10%, 3 - 5 MM diam); absorbs water well	W			+											21.35	24.38	3.03	2.47	82	2.11	70	FR	MS	2	10	2	2	Qz
BD	85				SHL		LS	BK	lenses 3mm x 15 mm; common calcite veinlets < 1mm thick both parallel and normal to BD; greenish calcite veinlets give H2S odour with HCl	W				+	+																						
VT	0/80																																				
																								24.38	27.43	3.05	2.87	94	1.75	57	FR	MS	2	10	3	2	Qz
																								27.43	30.48	3.05	3.04	100	2.61	86	FR	MS	1	10	2	2	Qz
																								30.48	33.53	3.05	2.95	97	2.95	97	FR	MS	0				
																								33.53	36.58	3.05	3.00	98	2.65	87	FR	MS	1	5	3	2	Qz
																								36.58	39.62	3.04	3.00	99	2.60	86	FR	MS	1	10	3	2	Qz
VT	5				SHL		LA	BK	sulphide-rich veinlets at high angle to BD with localized vfg pyrite; rare bitumen along some fractures	W				+	+									39.62	42.67	3.05	2.94	96	2.20	72	FR	MS	1	30	2	2	Cb
BD	80																																				
																								42.67	45.72	3.05	2.86	94	2.61	86	FR	VS	1	5	5	5	Qz

PROPERTY: EL **HOLE:** EL-07-05

Struct.		LITHOLOGY								ALT.			MINERALS				SAMPLES							Blocks			GEOTECHNICAL						JOINTS				
																											REC		RQD								
Type	Attitude	From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:				Fe	Ca	Py	Cp	From (m)	To (m)	Interval (m)	Sample	Ni (ppm)	Zn (ppm)	Mo (ppm)	From (m)	To (m)	Intvl. (m)	(m)	Percent	(m)	Percent	Weathering	Hardness	Frequency	Attitude	Shape	Roughness	Infilling
SH	var				SHL		LA	BK	43.16 - 44.10 Calcareous black shale with common, high-angle calcite veinlets with rare sheared/torsional appearance (< 1mm diam)					+																							
BD	85																																				
VT	5				SHL		LA	BK	44.80 - 44.99 Greenish calcite-rich veinlets yield H_2S smell with HCl (sulphides present)					+	+									45.72	48.77	3.05	2.76	90	2.00	66	FR	VS	1	5	2	2	Cb
																								48.77	51.82	3.05	3.00	98	2.65	87	FR	S	1	10	5	2	Qz
																								51.82	54.87	3.05	2.82	92	1.97	65	FR	S	1	5	2	1	Qz
Bx		52.30	52.58	0.28	BXA	DME		an	Black shale - carbonate breccia, with angular shale clasts supported in calcite matrix	W				+																							
					SHL			BK																													
VT	var	52.58	71.37	18.79	SHL	DME		BK	Black shale with calcite-rich veinlets both parallel and perpendicular to BD, 1 - 2 mm thick with local, rare brecciation; rare, thin laminae of vfg pyrite.	W				+	+									54.87	57.91	3.04	3.07	101	3.07	101	FR	MS	0				
																								57.91	60.93	3.02	3.08	102	2.74	91	FR	MS	1	5	3	2	Cb
																								60.93	64.01	3.08	3.05	99	2.65	86	FR	S	1	10	3	2	Cb
																	63.87	65.37	1.50	C385331	140.0	336	60.70	64.01	67.06	3.05	3.07	101	2.85	93	FR	MS	1	5	5	3	Qz
																	65.37	66.87	1.50	C385332	160.0	707	63.10														
																	66.87	68.37	1.50	C385333	138.0	1420	47.10	67.06	70.10	3.04	3.01	99	2.21	73	FR	MS	1	15	5	3	Cb
																	68.37	69.37	1.00	C385334	172.5	626	68.60														
																	69.37	70.37	1.00	C385335	164.0	471	64.60														
																	70.37	70.87	0.50	C385336	159.5	236	71.80	70.10	73.15	3.05	3.03	99	2.85	93	FR	MS	1	60	5	4	Cb
BD	80	71.37	71.51	0.14	SHL/E	NIMO		BK	NiMo Horizon - Thin, moderately bioturbated sulphide laminae with common, disrupted calcite-rich thin laminae					+	+		70.87	71.73	0.50	C385337	204.0	203	90.80														
BD	75	71.51	73.64	2.13	LST	OSR		GY	Finely laminar grey limestone with zones (several cm thick) of brecciation with angular clasts in calcite matrix	W				+			71.37	71.51	0.14	C385338	5.18%	1.86%	1570														
BD	85	73.64	101.43	27.79	SHL	OSR		BK	Moderately thickly interbedded black shale and grey limestone, with common calcite veinlets both parallel and perpendicular to BD (1mm - 7 mm thick). Local pinching and swelling of limestone beds. Rare brecciation. Bioturbation becomes common at 95.60 over a 40 cm interval. limestone beds decrease with depth, whereas black shale beds increase in frequency with depth.	W				+			71.51	72.01	0.50	C385340	158.0	200	15.70	73.15	76.20	3.05	2.97	97	2.26	74	FR	MS	1	45	3	2	Cb
VT	var																72.01	72.51	0.50	C385341	156.5	168	12.35														
																	72.51	73.51	1.00	C385342	191.5	587	55.00														
																	73.51	74.51	1.00	C385343	192.5	617	52.00	76.20	79.25	3.05	2.93	96	2.71	89	FR	VS	1	40	2	2	Cb
																	74.51	76.01	1.50	C385344	279.0	465	64.80														
																	76.01	77.51	1.50	C385345	168.0	300	50.60														
																	77.51	79.01	1.50	C385346	155.0	308	46.70	79.25	82.30	3.05	3.00	98	1.94	64	FR	VS	1	15	3	2	Cb
																	BLANK			C385339	44.9	48	2.67														
																								82.30	85.34	3.04	3.08	101	3.08	101	FR	VS	0				
																								85.34	88.39	3.05	3.07	101	2.75	90	FR	S	1	10	5	3	Cb
																								88.39	91.44	3.05	3.03	99	3.03	99	FR	S	0				
																								91.44	94.49	3.05	3.07	101	2.33	76	FR	S	1	20	5	3	Cb

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Struct.		LITHOLOGY								ALT.			MINERALS				SAMPLES							Blocks			GEOTECHNICAL						JOINTS				
																											REC		RQD								
Type	Attitude	From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:				Fe	Ca	Py	Cp	From (m)	To (m)	Interval (m)	Sample	Ni (ppm)	Zn (ppm)	Mo (ppm)	From (m)	To (m)	Intvl. (m)	(m)	Percent	(m)	Percent	Weathering	Hardness	Frequency	Attitude	Shape	Roughness	Infilling
																								94.49	97.54	3.05	3.07	101	3.07	101	FR	MS	0				
																								97.54	100.58	3.04	2.92	96	2.44	80	FR	MS	1	45	3	5	Cb
																								100.58	103.63	3.05	3.04	100	2.82	92	FR	MS	1	35	3	3	Cb
BD	85	101.43	109.73	8.30	SHL	OSR		BK	Calcareous and carbonaceous black shale distinctively darker than any other shale in this core. Shale fizzes with HCl and exudes H2S odour indicating presence of sulphides; sulphides vfg and hard to see even with hand lens. Rare veinlets of calcite (<1mm diam) at high angle to BD					+	+																						
																								103.63	106.68	3.05	2.76	90	1.60	52	FR	MS	2	30	5	4	Cb
																								106.68	109.73	3.05	2.55	84	1.95	64	FR	MS	1	20	3	3	Cb
		109.73							END OF HOLE																												