NiMo PROJECT

PROPERTY: EL

HOLE: EL0-15

Easting	Northing	Elev.	Depth (m)
467724	7301780	389	195.07

Contractor: North Star
Drill: MD-002

SURVEY							
Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	050°	-70°	compass				

Core size: BTW
Casing depth: 6.71 (m) out

Drilling dates: June 29 to July 1, 2007

Logged by: J. Lane

Target: Step back from EL07-13, collaring in DME

SUMMARY				
From (m)	To (m)	Interval	Unit	Comments
0.00	5.00	5.00	OVB	
5.00	174.41	169.41	DME	
174.41	174.43	0.02	NiMo	
174.43	195.07	20.64	OSR	

SAMPLES

Numbers: C385472 - C835489

Total: 18
Date sent: July 12, 2007

COMMENTS

PROPERTY: EL **HOLE:** EL07-15

Struct. Type	Struct. Attitude	LITHOLOGY From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	ALT. car			MINERALS py				SAMPLES From (m)	To (m)	Interval (m)	Sample	Ni (ppm)	Zn (ppm)	Mo (ppm)	Blocks From (m)	To (m)	Intvl. (m)	GEOTECHNICAL REC (m)	REC Percent	RQD (m)	RQD Percent	Weathering	Hardness	JOINTS Frequency	Attitude	Shape	Roughness	Infilling
		0.00	5.00	5.00	OVB				OVERBURDEN																												
BD	80	5.00	12.19	7.19	SHL	DME	FG	BK	core is very broken up and crumbled, shows a yellow coloured powder on broken surfaces from 8.84-9.20- does not react with acid.															5.00	6.10	1.10	1.10	100	0.00	0	SW	MS	30	10	2	3	Qz
																								6.10	9.14	3.04	2.30	76	0.00	0	SW	MS	30	10	2	2	Qz
																								9.14	12.19	3.05	3.15	103	0.00	0	FR	MS	30	10	3	2	Qz
BD	80	12.19	12.74	0.55	SHL	DME	FG	BK	Core has become a lighter shade of grey.															12.19	15.24	3.05	1.68	55	0.00	0	SW	MS	30	15	3	2	Qz
		12.74	21.90	9.16	SHL	DME	FG	BK	Same shale as above; at 16.05 first appearance of a small band of pyrite 2mm thick. Fractured surfaces show both a white and yellow non-carbonaceous coating.				t												15.24	18.29	3.05	2.85	93	0.22	7	SW	MS	30	15	3	3	Qz
																								18.29	21.34	3.05	2.87	94	2.21	72	FR	MS	8	10	3	2	Qz
BD	70	21.90	39.12	17.22	SHL	DME	FG	BK	Core has become consistently more competent; also the core is quite hard; there is very little sulfides in the core; from 29.28-29.38m core has very thick (2-3mm) white soft powder that does not fizz; Fault gouge w/ ~ 7% pyrite occurs at: 29.95-29.96, 32.65-32.66, 37.00-37.03m. From 34.90-35.00 a fractured surface is covered in clear tabular crystals that look like flakes of thin plastic (gypsum?)				m													21.34	24.38	3.04	3.02	99	0.44	14	FR	MS	8	10	5	3	Qz
																								24.38	27.43	3.05	3.06	100	1.90	62	FR	MS	3	10	3	4	Qz
																								27.43	30.48	3.05	2.85	93	0.14	5	FR	MS	10	15	3	5	Qz
																								30.48	33.53	3.05	3.02	99	0.52	17	FR	MS	8	5	3	2	Qz
																								33.53	36.58	3.05	3.03	99	0.55	18	FR	MS	6	5	3	2	Qz
																								36.58	39.62	3.04	2.78	91	0.12	4	FR	MS	10	5	2	2	Qz
BD	80	39.12	42.14	3.02	CBR	DME	FG	GY	Fine to medium grained crystalline in some spots; fizzes intensely with acid; medium hard; contains veins and stringers both running parallel and roughly perpendicular to bedding; fractured surfaces contain thick carbonate powder. At 42.12m the carbonate core looks slightly bioturbated for about 2cm, the carbonate also shows a yellow/orange colour.	l																39.62	42.67	3.05	2.95	97	1.48	49	FR	MS	8	80	2	3	Cb
BD	80	42.14	79.25	37.11	SHL	DME	FG	BK	Similar shale as above only fractured surfaces now have a carbonate coating on them; the core is quite hard and is beginning to contain thin bands of pyrite every ~0.5-1m or so. Fault gouge is seen from 46.89-46.91, and 51.69-51.71m; at 68.17-68.30m there is a gradual change to a lighter grey carbonate shale.	tw																42.67	45.72	3.05	3.09	101	1.47	48	FR	S	8	5	3	3	Qz
FX	5																							45.72	48.77	3.05	2.96	97	1.26	41	FR	S	5	5	2	3	Qz
																								48.77	51.82	3.05	3.06	100	0.00	0	FR	MS	20	10	2	3	Qz

PROPERTY: EL **HOLE:** EL07-15

Struct.		LITHOLOGY								ALT.			MINERALS				SAMPLES							Blocks			GEOTECHNICAL						JOINTS				
																											REC		RQD								
Type	Attitude	From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	car			py				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
																								51.82	54.87	3.05	3.07	101	1.65	54	FR	MS	4	5	5	4	Qz
																								54.87	57.91	3.04	3.04	100	2.56	84	FR	MS	2	5	2	3	Qz
																								57.91	60.93	3.02	3.08	102	1.92	64	FR	MS	3	10	5	3	Qz
																								60.93	64.01	3.08	3.07	100	0.90	29	FR	MS	4	5	2	2	Qz
																								64.01	67.06	3.05	3.06	100	1.87	61	FR	MS	3	5	3	5	Qz
																								67.06	70.10	3.04	3.02	99	1.74	57	FR	MS	3	10	3	5	Qz
																								70.10	73.15	3.05	3.04	100	1.07	35	FR	MS	5	10	5	4	Qz
																								73.15	76.20	3.05	3.03	99	2.01	66	FR	MS	4	10	2	2	Qz
																								76.20	79.25	3.05	3.20	105	1.23	40	FR	MS	10	15	3	2	Qz
BD	80	79.25	91.44	12.19	SHL	DME	FG	BK	Core becomes quite massive around 79.25 with little carbonate on fractures. At 84.58 core becomes gradually softer until 88.39m; also there is very little pyrite in the core.																79.25	82.30	3.05	3.01	99	2.55	84	FR	MS	2	80	2	2	Qz
																								82.30	85.34	3.04	3.08	101	2.83	93	FR	MS	1	20	2	3	Qz
																								85.34	88.39	3.05	3.05	100	2.79	91	FR	MS	1	20	3	2	Qz
																								88.39	91.44	3.05	3.05	100	2.46	81	FR	MS	2	5	5	2	Qz
																								91.44	94.49	3.05	3.08	101	2.51	82	FR	MS	2	5	3	2	Qz
		91.44	113.07	21.63	SHL	DME	FG	BK	[illegible] lenses and layers of pyrite 1mm thick occurring every 15-20cm, core also has a slight sparkly appearance in the sun. The thickness of the pyrite layers seems to increase down section. Fault gouge @ 113.06-113.07; at this point the bedding angle changes to 70 deg tca.																94.49	97.54	3.05	3.11	102	2.56	84	FR	MS	1	10	3	4	Qz
																								97.54	100.58	3.04	3.05	100	2.95	97	FR	MS	1	15	2	3	Qz
																								100.58	103.63	3.05	3.03	99	2.90	95	FR	MS	1	20	3	3	Qz
																								103.63	106.68	3.05	3.04	100	3.04	100	FR	MS	0				
																								106.68	109.73	3.05	3.07	101	2.97	97	FR	MS	1	5	3	2	Qz
																								109.73	112.78	3.05	3.05	100	2.60	85	FR	MS	1	10	1	2	Qz

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LITHOLOGY										ALT.			MINERALS				SAMPLES							Blocks			GEOTECHNICAL						JOINTS					
Struct.																											REC		RQD								
Type	Attitude	From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	car			py				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	
																								112.78	115.83	3.05	3.02	99	2.54	83	FR	MS	2	80	1	2	Qz
		113.07	114.78	1.71	CBR	DME	FG	GY	carbonate rich core light grey in colour	I																											
BD	80	114.78	118.87	4.09	SHL	DME	FG	GY	same shale as above- has become somewhat softer- scratches with a nail.															115.83	118.87	3.04	3.05	100	3.00	99	FR	MS	1	80	1	2	Qz
		118.87	118.97	0.10	CBR	DME	BX		Carbonate breccia with angular .5-1cm shale clasts.																												
BD	80	118.97	136.06	17.09	SHL	DME	FG	GY	Same shale as above with blebs of pyrite now appearing; at 121.23 (for 2mm) there is a lens of very shiny yellowy pyrite, distinct in appearance to the other pyrite layers. Core becomes quite hard around 121.00m.																	118.87	121.92	3.05	2.92	96	1.45	48	FR	MS	2	5	3	2	Qz
																								121.92	124.97	3.05	3.06	100	2.60	85	FR	MS	2	10	2	3	Qz
																								124.97	128.17	3.20	3.08	96	2.89	90	FR	MS	2	5	1	3	Qz
																								128.01	131.06	3.05	3.06	100	2.64	87	FR	MS	1	5	2	2	Qz
																								131.06	134.12	3.06	3.06	100	2.77	91	FR	MS	2	5	2	2	Cb
																								134.12	137.16	3.04	3.03	100	2.73	90	FR	MS	2	20	2	3	Qz
BD	80	136.06	155.40	19.34	SHL	DME	FG	GY	Core shows alternating bands of medium and dark grey sediments- not distinct layers more of zones. Pyrite content has decreased.															137.16	140.21	3.05	3.08	101	2.74	90	FR	MS	1	10	2	2	Cb
																								140.21	143.26	3.05	3.08	101	3.00	98	FR	MS	1	15	2	2	Cb
																								143.26	146.30	3.04	3.04	100	2.88	95	FR	MS	1	5	2	3	Qz
																								146.30	149.35	3.05	3.01	99	2.86	94	FR	MS	1	20	3	2	Qz
																								149.35	152.40	3.05	2.95	97	2.40	79	FR	MS	2	20	1	2	Cb
																								152.40	155.45	3.05	3.06	100	2.66	87	FR	MS	1	10	3	2	Cb
BD	80	155.40	156.10	0.70	SHL	DME	FG	GY	medium grey, quite hard carbonate rock that fizzes intensely with acid, the lower contact with the shale is bulbous looking.	I														155.45	158.50	3.05	3.04	100	2.60	85	FR	MS	2	65	3	2	Qz
BD	80	156.10	158.05	1.95	SHL	DME	FG	GY	same shale as above																												
BD	80	158.05	158.41	0.36	CBR	DME			very fine looking carbonate veinlets flooding the core.															158.50	161.54	3.04	3.05	100	3.04	100	FR	MS	0				
BD	80	158.41	159.70	1.29	SHL	DME	FG	GY	same shale as above																												
		159.70	159.71	0.01					fault gouge																												
BD	80	159.71	164.60	4.89	SHL	DME	FG	GY	same shale as above although it is becoming more organic rich as the fractured surfaces have a graphitic appearance.															161.54	164.59	3.05	3.07	101	3.07	101	FR	MS	0				
BD	80	164.60	171.04	6.44	SHL	DME	FG	GY	start to see very thin carbonate stringers in															164.59	167.64	3.05	2.98	98	2.84	93	FR	MS	2	50	1	2	Qz

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LITHOLOGY										ALT.			MINERALS				SAMPLES							Blocks			GEOTECHNICAL						JOINTS					
Struct.																											REC		RQD									
Type	Attitude	From (m)	To (m)	Interval (m)	Type	Unit	Texture	Modifier	Notes:	car			py				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	
									the core running in all directions.																													
																	166.89	168.39	1.50	C385472	150.0	640	55.10														
																								167.64	170.69	3.05	3.08	101	2.72	89	FR	MS	1	5	2	1	Qz
																	168.39	169.89	1.50	C385473	189.0	482	69.10														
																	169.89	171.39	1.50	C385474	109.5	983	38.30														
																								170.69	173.74	3.05	3.05	100	2.48	81	FR	MS	2	5	1	2	Qz
BD	80	171.04	171.63	0.59	CBR	DME	FG	GY	carbonaceous rock medium to light grey in colour								171.39	172.39	1.00	C385475	155.0	766	51.70														
		171.63	174.41	2.78	SHL	DME	FG	GY	Similar interbedded shale as above -very hard!								172.39	173.39	1.00	C385476	152.0	445	50.30														
																	173.39	173.89	0.50	C385477	139.0	246	47.90	173.74	176.78	3.04	3.06	101	2.86	94	FR	MS	1	5	2	2	Qz
		174.41	174.43	0.02	MSX	NiMo	FG		swirly looking, bioturbated banded sulfide, 1-2cm thick								173.89	174.39	0.50	C385478	151.0	206	52.90														
		174.43	176.00	1.57	SHL	OSR	FG	GY	Nodular shale- very heavy core, dark grey with lighter grey non- reactive balls that have a slightly metallic appearance.								174.39	174.41	0.02	C385479	4.30%	1.18%	1550														
		176.00	195.07	19.07	SHL	OSR	FG	BK	Black carbonaceous shale- very hard, interlayer dark and light grey with intermittent very thin <1mm carbonate stringers running roughly parallel to bedding.								174.41	174.60	0.19	C385481	308.0	626	96.40	176.78	179.83	3.05	3.26	107	2.99	98	FR	S	2	10	3	3	Cb
																	174.60	175.31	0.71	C385482	142.5	316	33.90														
																	175.31	175.81	0.50	C385483	149.5	330	35.80														
																	175.81	176.31	0.50	C385484	176.5	335	43.40	179.83	182.88	3.05	3.09	101	3.09	101	FR	S	0				
																	176.31	177.31	1.00	C385485	169.5	236	41.90														
																	177.31	178.31	1.00	C385486	95.0	149	27.40														
																	178.31	179.81	1.50	C385487	172.0	259	38.80	182.88	185.93	3.05	3.05	100	3.05	100	FR	S	0				
																	179.81	181.31	1.50	C385488	125.5	187	33.20														
																	181.31	182.81	1.50	C385489	163.0	254	39.90														
																	BLANK			C385480	3.4	16	0.54	185.93	188.98	3.05	3.07	101	2.89	95	FR	S	1	10	2	2	Cb
																								188.98	192.02	3.04	3.09	102	3.09	102	FR	S	0				
																								192.02	195.07	3.05	3.04	100	3.04	100	FR	MS	0				
		195.07							END OF HOLE!																													