Bergvesenet

Postboks 3021, N-7441 Trondheim

Rapportarkivet

Bergvesenet rapport nr	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering
4824	2159/05			**Fortrolig**
Kommer fra ..arkiv	Ekstern rapport nr	Oversendt fra Sulfidmalm a.s.	Fortrolig pga Muting	Fortrolig fra dato:

Tittel

2004-2005 Drilling Programs, Espedalen Prosject
Summerdrilling 2004, Winter drilling 2005 at Stormyra and summerdrilling 2005 Storgruva-Trona-Vesle. Appendix C til rapport BV 4823

Forfatter	Dato	Bedrift (Oppdragsgiver og/eller oppdragstaker)
Tirschmann, Patti Blair, Tony	07.12 2005 (År)	Sulfidmalm A/S

Kommune	Fylke	Bergdistrikt	1: 50 000 kartblad	1: 250 000 kartblad
Sør-Fron Gausdal	Oppland		17171 17172	Lillehammer

Fagområde	Dokument type	Forekomster (forekomst, gruvefelt, undersøkelsesfelt)
Boring		Stormyra Vesle Andreasberg Jørstad Storgruva Evans Statsråd Stang Nicoline Melgårdseter Stylskampen Søndre Gråhø Grimstjønna Dalen
Råstoffgruppe	**Råstofftype**	
Malm/metall	Cu Ni	

Sammendrag, innholdsfortegnelse eller innholdsbeskrivelse

Inneholder appendix C til rapport BV 4823

APPENDIX C

DRILL LOGS

2004 Summer Drilling

Detailed Log

Hole Number: **ES2004-01**

Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	T246	Contractor:	Geobor-Salag A/S
Date Started:	7/23/2004	Pulse EM Survey:	N			Logged by:	Trevor Blair
Date Completed:	8/5/2004	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,805,861.69	Local Northing:	6049.73
UTM Easting:	535,275.52	Local Easting:	7998.23
Elevation: 998.32			

Collar Dip:	-73.50
Collar Azimuth:	50.00
Length:	112.65

Comments

Purpose: Test UTEM conductor ESP_05_03. Conductivity = 500 Siemens

Result: Intersected gabbronorites and siliceous metasediments as well as one unit of sulphidic norite (65.45-80.45m). Sulphidic norite contains 3-5% disseminated sulphides and locally up to 10% sulphides where cm scale remobilized veinlets are present. Hand conductivity measurements (taken on whole core) were 300 Siemens.

All nickel values less than detection limit (ie. <0.05%).

Detailed Lithology

From	To		Lithology
0.00	2.85	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
2.85	41.12	**7a Gabbronorite** Medium grained, homogenous, equigranular, dark green and white, weakly to moderately magnetic gabbronorite. This unit contains 45% feldspar and 55% equigranular, dark green pyroxenes. Locally, the gabbronorite displays a weak foliation (mineral alignments) at 30-40 tca. The lower 3.32m (37.80m to 41.12m) contains 5-15% mm scale, dark brown to purple garnets (almandine). This unit contains no visible sulphides. The lower contact of this unit is diffuse and was based on the appearance of quartz-rich banding. Interpretation: Consistent with Heim's Rock Suite 3 (Gabbronortite-Noritegabbro). **Minor Interval** 18.20 18.41 **8e Pyroxenite** Fine grained, non-magnetic, dark green to black, homogenous pyroxenite dyke. The upper contact is sharp at 35 tca with the lower contact lost in broken core.													

Detailed Lithology

From	To	Lithology
41.12	65.45	**5a Siliceous Metasediments**

Fine grained, strongly silicified, grey, unhomogenous, non-magnetic metasediments. The sediments are moderately foliated (45-60 degress tca, remenent bedding) and locally appear remelted, resulting in a gneissic texture. This unit contains 10-15% mm scale pink garnets and 10% mafic minerals (biotite, pyroxenes) within a quartzofeldspathic matrix. Intercalated with siliceous sediments are more mafic horizons (dm scale - Heim's series 2 norites?) which generally contain 3-5% finely disseminated sulphides.

This unit is crosscut by 15-20% dm to m scale fine grained, homogenous, non-magnetic, pale to dark green, mafic dykes (pyroxenite?). These dykes are weakly silicified, crosscut by mm scale chlorite infilled fractures and contain locally contain trace sulphides. See minor units for intervals.

These metasediments contain trace to 3% fine grained disseminated non-magnetic pyrrhotite. Sulphides are locally concentrated in cm to dm scale horizons, concordant with foliations.

The lower contact of this unit is gradational over 2.0m and was based on the increased percentage of mafic horizons versus siliceous horizons.

Interpretation: Likely consistent with Heim's Rock Suite 1 (Hybrid rocks).

Minor Interval

52.75 54.02 **8e Pyroxenite**

See major unit for description.

Upper contact is sharp but irregular (approximately 15 degrees tca). lower contact is sharp at 55 degrees tca.

Minor Interval

58.39 60.06 **8e Pyroxenite**

See major unit for description (medium grained).

Upper contact is lost within broken core, lower contact occurs along quartzofeldspathic veinlet, sub-parallel to core axis (5 degrees tca).

Mineralization	45.30	45.42	12.0%	Po	Pyrrhotite
				D	Disseminated
				10-15%	
Mineralization	57.50	57.58	50.0%	Po	Pyrrhotite
				VN	Veined
				Remobilized veinlets	

Structure	43.80	43.81	Sm	General Foliation
Structure	44.05	44.06	Sm	General Foliation
Structure	45.37	45.38	Sm	General Foliation
Structure	63.65	63.66	Sm	General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00051	41.12	41.85	0.73	0.03	0.03	0.01	3.64	0.01	0.01	0.01	0.25
PG00052	41.85	42.72	0.87	0.03	0.03	0.01	3.39	0.01	0.01	0.01	0.25
PG00053	44.78	45.18	0.40	0.03	0.03	0.01	0.69	0.01	0.01	0.01	0.25
PG00054	45.18	45.58	0.40	0.03	0.03	0.01	3.05	0.01	0.01	0.03	0.25
PG00055	45.58	45.98	0.40	0.03	0.03	0.01	0.17	0.01	0.01	0.01	0.25
PG00056	51.44	52.12	0.68	0.03	0.03	0.01	3.82	0.01	0.01	0.02	0.25
PG00057	52.12	52.75	0.63	0.03	0.03	0.01	1.67	0.01	0.01	0.01	0.25
PG00058	52.75	54.02	1.27	0.03	0.03	0.01	0.67	0.01	0.01	0.01	0.25
PG00059	56.75	57.30	0.55	0.03	0.03	0.01	2.70	0.01	0.01	0.01	0.25
PG00060	57.30	57.80	0.50	0.03	0.03	0.01	6.39	0.01	0.01	0.02	0.25
PG00061	57.80	58.39	0.59	0.03	0.03	0.01	3.51	0.01	0.01	0.01	0.25
PG00062	58.39	59.31	0.92	0.03	0.03	0.01	2.79	0.01	0.01	0.03	0.25
PG00063	59.31	60.27	0.96	0.03	0.03	0.01	2.25	0.02	0.01	0.01	0.25
PG00064	64.08	65.45	1.37	0.03	0.03	0.01	3.18	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
65.45	80.45	**6f Norite** Fine to medium grained, dark grey, weakly to moderately magnetic norite composed of 65% pyroxenes and 35% plagioclase. This unit contains 5% cm to dm scale horizons of anorthosite as well as 5% cm to dm scale horizons of metasediments. Contact relationships are generally sharp but irregular (see minor units for larger horizons). Locally, plagioclase appears as mm to cm scale clots (remelt) which results in a vague brecciated texture. This norite contains 3-5% disseminated sulphides throughout, although sulphides have been remobilized resulting in mm scale veinlets (defining foliation planes) and blebs. Locally, sulphide content (cm to dm scale) approaches 10%. The lower contact of this unit is sharp along a siliceous sedimentary unit. Interpretation: Likely consistent with Heim's Rock Suite 2b (Sulphide bearing norites containing rafts of Hybrid rocks and intermixed with Anorthosites). **Minor Interval** 67.24 67.62 **4 Anorthosite / Anorthositic Gabbro** Medium grained, white, non-magnetic, massive anorthosite composed of 90% plagioclase and 10% pyroxenes. The upper and lower contacts of this unit are sharp but irregular. The anorthosite appears to be younger than the norite as two amoeboid fingers intrude the noritic groundmass. This unit contains trace disseminated sulphides. **Minor Interval** 77.06 78.10 **5a Siliceous Metasediments** Fine grained, non-magnetic, grey and white, weakly to moderately foliated metasediments composed of plagioclase, pyroxenes, garnet and quartz. The lower contact of this unit is highly broken, although garnet content increases toward the lower contact. **Mineralization** 65.45 80.45 5.0% Po Pyrrhotite D Disseminated Locally remobilized in veinlets (up to 10% **Structure** 70.40 70.41 Sm General Foliation Within sedimentary raft **Structure** 79.45 79.46 Sm General Foliation Within norite, sulphides define foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00065	65.45	66.35	0.90	0.03	0.03	0.01	5.40	0.01	0.01	0.01	0.25
PG00066	66.35	67.24	0.89	0.03	0.06	0.01	5.05	0.01	0.01	0.01	0.60
PG00067	67.24	67.62	0.38	0.03	0.03	0.01	0.57	0.01	0.01	0.01	0.25
PG00068	67.62	68.50	0.88	0.03	0.03	0.01	5.29	0.01	0.01	0.01	0.50
PG00069	68.50	69.50	1.00	0.03	0.03	0.01	4.79	0.01	0.01	0.01	0.25
PG00070	69.50	70.50	1.00	0.03	0.03	0.01	4.01	0.01	0.01	0.01	0.25
PG00071	70.50	71.50	1.00	0.03	0.03	0.01	2.18	0.01	0.01	0.02	0.25
PG00072	71.50	72.50	1.00	0.03	0.03	0.01	5.50	0.01	0.01	0.02	0.25
PG00073	72.50	73.50	1.00	0.03	0.03	0.01	5.90	0.01	0.01	0.04	0.25
PG00074	73.50	74.50	1.00	0.03	0.03	0.01	6.23	0.01	0.01	0.05	0.25
PG00076	74.50	75.50	1.00	0.03	0.03	0.01	5.17	0.01	0.01	0.01	0.25
PG00077	75.50	76.50	1.00	0.03	0.03	0.01	7.85	0.01	0.01	0.15	0.25
PG00078	76.50	77.06	0.56	0.03	0.03	0.01	9.10	0.01	0.01	0.02	0.25
PG00079	77.06	78.10	1.04	0.03	0.03	0.01	1.55	0.01	0.01	0.01	0.25
PG00080	78.10	78.70	0.60	0.03	0.03	0.01	4.54	0.01	0.01	0.01	0.25
PG00081	78.70	79.50	0.80	0.03	0.03	0.01	7.86	0.01	0.01	0.01	0.60
PG00082	79.50	80.45	0.95	0.03	0.03	0.01	7.07	0.01	0.02	0.01	0.25

Detailed Lithology

From	To	Lithology
80.45	97.78	**5a Siliceous Metasediments** Fine grained, light to dark grey, weakly to moderately foliated (60 tca), non-magnetic siliceous metasediment composed of 25% mm scale, light purple garnets, 5-10% pyroxenes and <5% biotite within a quartzofeldspathic groundmass. This unit is highly broken and blocky. Trace disseminated pyrrhotite occurs locally. The lower contact of this unit is sharp at 60 degrees tca with underlying unit. Interpretation: Likely consistent with Heim's Rock Suite 1 (Hybrid rocks). **Structure** 87.30 87.31 Sm General Foliation **Structure** 95.60 95.61 Sm General Foliation **Structure** 96.23 96.24 Sm General Foliation
97.78	112.65	**7a Gabbronorite** Medium grained (equigranular), black and white, homogenous, massive, weakly magnetic gabbronorite composed of 55-65% pyroxenes and 35-45% plagioclase. The upper 1.50m of this unit is fine grained, light green and non-magnetic (late intrusive). This unit contains local trace disseminated sulphides. The lower contact of this unit is unknown as drillhole was completed at 112.65m. Interpretation: Consistent with Heim's Rock Suite 3 (Gabbronortite-Noritegabbro).

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00083	80.45	81.00	0.55	0.03	0.03	0.01	1.37	0.01	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2004-01

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00051	41.12	41.85	0.73	0.03	0.03	0.01	3.64	0.01	0.01	0.01	0.25																
PG00052	41.85	42.72	0.87	0.03	0.03	0.01	3.39	0.01	0.01	0.01	0.25																
PG00053	44.78	45.18	0.40	0.03	0.03	0.01	0.69	0.01	0.01	0.01	0.25																
PG00054	45.18	45.58	0.40	0.03	0.03	0.01	3.05	0.03	0.01	0.01	0.25																
PG00055	45.58	45.98	0.40	0.03	0.03	0.01	0.17	0.01	0.01	0.01	0.25																
PG00056	51.44	52.12	0.68	0.03	0.03	0.01	3.82	0.02	0.01	0.01	0.25																
PG00057	52.12	52.75	0.63	0.03	0.03	0.01	1.67	0.01	0.01	0.01	0.25																
PG00058	52.75	54.02	1.27	0.03	0.03	0.01	0.67	0.01	0.01	0.01	0.25																
PG00059	56.75	57.30	0.55	0.03	0.03	0.01	2.70	0.01	0.01	0.01	0.25																
PG00060	57.30	57.80	0.50	0.03	0.03	0.01	6.39	0.02	0.01	0.01	0.25																
PG00061	57.80	58.39	0.59	0.03	0.03	0.01	3.51	0.01	0.01	0.01	0.25																
PG00062	58.39	59.31	0.92	0.03	0.03	0.01	2.79	0.03	0.01	0.01	0.25																
PG00063	59.31	60.27	0.96	0.03	0.03	0.01	2.25	0.01	0.02	0.01	0.25																
PG00064	64.08	65.45	1.37	0.03	0.03	0.01	3.18	0.01	0.01	0.01	0.25																
PG00065	65.45	66.35	0.90	0.03	0.03	0.01	5.40	0.01	0.01	0.01	0.25																
PG00066	66.35	67.24	0.89	0.03	0.06	0.01	5.05	0.01	0.01	0.01	0.60																
PG00067	67.24	67.62	0.38	0.03	0.03	0.01	0.57	0.01	0.01	0.01	0.25																
PG00068	67.62	68.50	0.88	0.03	0.03	0.01	5.29	0.01	0.01	0.01	0.50																
PG00069	68.50	69.50	1.00	0.03	0.03	0.01	4.79	0.01	0.01	0.01	0.25																
PG00070	69.50	70.50	1.00	0.03	0.03	0.01	4.01	0.01	0.01	0.01	0.25																
PG00071	70.50	71.50	1.00	0.03	0.03	0.01	2.18	0.02	0.01	0.01	0.25																
PG00072	71.50	72.50	1.00	0.03	0.03	0.01	5.50	0.02	0.01	0.01	0.25																
PG00073	72.50	73.50	1.00	0.03	0.03	0.01	5.90	0.04	0.01	0.01	0.25																
PG00074	73.50	74.50	1.00	0.03	0.03	0.01	6.23	0.05	0.01	0.01	0.25																
PG00076	74.50	75.50	1.00	0.03	0.03	0.01	5.17	0.01	0.01	0.01	0.25																
PG00077	75.50	76.50	1.00	0.03	0.03	0.01	7.85	0.15	0.01	0.01	0.25																
PG00078	76.50	77.06	0.56	0.03	0.03	0.01	9.10	0.02	0.01	0.01	0.25																
PG00079	77.06	78.10	1.04	0.03	0.03	0.01	1.55	0.01	0.01	0.01	0.25																
PG00080	78.10	78.70	0.60	0.03	0.03	0.01	4.54	0.01	0.01	0.01	0.25																

Espedalen - Analysis

Hole Number: ES2004-01

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00081	78.70	79.50	0.80	0.03	0.03	0.01	7.86	0.01	0.01	0.01	0.60																
PG00082	79.50	80.45	0.95	0.03	0.03	0.01	7.07	0.01	0.01	0.02	0.25																
PG00083	80.45	81.00	0.55	0.03	0.03	0.01	1.37	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2004-01

Depth	Conductivity (Siemens)	COMMENTS
45.38	875.00	
57.55	300.00	
69.50	300.00	
72.25	250.00	
76.75	350.00	
79.85	200.00	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-01

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
3.50	1.90	
4.50	1.43	
5.50	1.59	
6.50	2.85	
7.50	1.74	
8.50	2.81	
9.50	2.42	
10.50	2.13	
11.50	2.06	
12.50	0.43	
13.50	2.24	
14.50	1.75	
15.50	2.26	
16.50	0.73	
17.50	3.00	
18.50	3.27	
19.50	3.60	
20.50	2.82	
21.50	2.44	
22.50	3.53	
23.50	4.80	
24.50	3.09	
25.50	3.04	
26.50	3.45	
27.50	3.88	
28.50	3.92	
29.50	3.51	
30.50	5.18	
31.50	4.44	
32.50	15.80	
33.50	10.20	
34.50	9.95	
35.50	7.10	
36.50	8.49	
37.50	30.50	
38.50	7.68	
39.50	7.23	
40.50	3.31	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-01

41.50	0.27	
42.50	1.03	
43.50	0.12	
44.50	0.31	
45.50	0.06	
46.50	0.17	
47.50	0.45	
48.50	0.11	
49.50	0.00	LOST CORE
50.50	0.31	
51.50	0.37	
52.50	0.47	
53.50	0.37	
54.50	0.55	
55.50	0.29	
56.50	0.74	
57.50	0.52	
58.50	0.21	
59.50	0.73	
60.50	0.41	
61.50	0.36	
62.50	0.32	
63.50	0.20	
64.50	0.29	
65.50	0.62	
66.50	0.78	
67.50	0.05	
68.50	0.27	
69.50	0.65	
70.50	0.21	
71.50	0.15	
72.50	0.34	
73.50	0.65	
74.50	0.19	
75.50	5.03	
76.50	0.32	
77.50	0.09	
78.50	0.18	
79.50	0.39	
80.50	0.12	
81.50	0.15	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-01
82.50	0.96	
83.50	0.62	
84.50	0.11	
85.50	0.25	
86.50	1.25	
87.50	0.27	
88.50	0.53	
89.50	0.24	
90.50	0.19	
91.50	0.13	
92.50	0.16	
93.50	0.50	
94.50	0.15	
95.50	0.09	
96.50	0.18	
97.50	0.06	
98.50	0.23	
99.50	4.65	
100.50	1.51	
101.50	2.70	
102.50	4.88	
103.50	4.44	
104.50	2.97	
105.50	2.16	
106.50	1.70	
107.50	5.62	
108.50	3.14	
109.50	3.21	
110.50	3.93	
111.50	0.94	
112.50	2.75	EOH at 112.65m

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-01

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
2.85	6.00	37	69	N	Missing core not marked in box
6.00	9.00	26	79	N	Missing core not marked in box
9.00	12.00	18	83	N	37cm of ground core at 11.63cm
12.00	15.00	25	93	N	
15.00	18.00	39	100	N	
18.00	21.00	57	97	N	
21.00	24.00	64	100	N	
24.00	27.00	76	100	N	
27.00	30.00	76	100	N	
30.00	33.00	50	100	N	
33.00	36.00	55	100	N	
36.00	39.00	41	100	N	
39.00	42.00	52	100	N	
42.00	45.00	27	100	N	
45.00	48.00	29	100	N	
48.00	51.00	29	50	N	1.5m of lost core
51.00	54.00	35	93	N	
54.00	57.00	41	100	N	
57.00	60.00	23	100	N	
60.00	63.00	54	100	N	
63.00	66.00	51	100	N	
66.00	69.00	58	100	N	
69.00	72.00	46	100	N	
72.00	75.00	30	100	N	
75.00	78.00	59	100	N	
78.00	81.00	62	100	N	
81.00	84.00	4	100	N	
84.00	87.00	0	100	N	Broken, blocky core, pieces reground
87.00	90.00	19	100	N	
90.00	93.00	20	100	N	
93.00	96.00	0	100	N	
96.00	99.00	38	100	N	
99.00	102.00	53	100	N	
102.00	105.00	74	100	N	
105.00	108.00	55	100	N	
108.00	111.00	32	100	N	
111.00	112.65	24	100	N	

Detailed Log

Hole Number: **ES2004-02** Units: METRIC

Project Name:	Espedalen	Collar Survey:	N	Plugged	N	UTM WGS 84 Coord	Local Coord	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	T246	UTM Northing: 6,805,506.83	Local Northing: 5735.23	Contractor:	Geobor-Salag A/S
Date Started:	7/21/2004	Pulse EM Survey:	N			UTM Easting: 535,162.74	Local Easting: 8197.58	Logged by:	Trevor Blair
Date Completed:	8/2/2004	Casing:	Left in Hole, capped			Elevation: 1001.62			
		Location:	Surface						

Collar Dip:	-45.00
Collar Azimuth:	50.00
Length:	29.80

Comments

Purpose: Test UTEM conductor ESP_05_04. Conductivity = 500 Siemens

Result: Hole was abandoned after 2 unsuccessful cementing attempts. Recollared as ES2004-02A. No samples taken.

Lithological interpretation: Intersected anorthosite/anorthositic gabbro with minor gabbronorite.

Detailed Lithology

From	To		Lithology
0.00	1.20	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
1.20	29.80	**4 Anorthosite / Anorthositic Gabbro**

Medium grained, white and dark green, non-magnetic, anorthosite / anorthositic gabbro composed of 70-75% plagioclase, 20-25% pyroxene, 5% biotite and trace to 3% garnets. This unit contains 10-15% mm scale, dark green to black, amorphous veinlets which are at irregular angles to the ca, resulting in a brecciated texture. Proximal to these veinlets the plagioclase has a light green hue (sausseritized). Mafic components increase downhole resulting in a more gabbroic composition.

This unit is crosscut by dm to m scale, fine grained, non-magnetic, black and white, homogenous gabbronorite dykes. Contact relationships are sharp but irregular (see minor units). These dykes contain 50-60% pyroxenes (light green to black) and 40-50% plagioclase. The lower 10.45m (19.35-20.80m) is injected with approximately 50% dyklets which do not display sharp contacts but rather irregular, remelted contacts?

This unit locally contains fine grained disseminated pyrrhotite.

The lower contact of this unit is undetermined as hole was lost at 29.8m.

Interpretation: Consistent with Heim's Rock Suite 2a (Anorthosite - Anorthositic Gabbro), crosscut by late gabbronorite bodies (Rock Suite 3).

Minor Interval

8.06 8.96 **7a Gabbronorite**

See major unit for rock description.

The upper and lower contacts of this unit are sharp but undulating at approx 37 and 10 degrees tca, respectively.

Minor Interval

16.96 17.34 **7a Gabbronorite**

See major unit for rock description.

The upper and lower contacts of this unit are sharp but undulating at approx 35 and 55 degrees tca, respectively.

Alteration	1.20	19.35	ALT	ALTERATION
			P	Pervasive
			M	Moderate
			Sausseritized	
Alteration	1.20	6.00	WEA	Weathering
			F	Fracture-Controlled
			S	Strong
			Ground water infiltration	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-02

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
1.50	0.35	
2.50	0.34	
3.50	0.36	
4.50	0.18	
5.50	0.40	
6.50	0.52	
7.50	0.05	
8.50	0.50	
9.50	0.16	
10.50	0.18	
11.50	0.08	
12.50	0.35	
13.50	0.18	
14.50	1.93	
15.50	1.47	
16.50	0.15	
17.50	0.17	
18.50	0.14	
19.50	0.57	
20.50	0.46	
21.50	0.32	
22.50	0.21	
23.50	0.38	
24.50	0.50	
25.50	0.62	
26.50	0.72	
27.50	0.98	
28.50	0.73	
29.50	0.51	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-02

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
1.20	3.00	22	89	N	
3.00	6.00	11	100	N	
6.00	9.00	51	100	N	
9.00	12.00	58	88	N	
12.00	15.00	45	100	N	
15.00	18.00	45	97	N	
18.00	21.00	47	100	N	
21.00	24.00	30	100	N	
24.00	27.00	34	100	N	
27.00	29.80	34	100	N	EOH at 29.80m

Detailed Log

Hole Number: **ES2004-02A** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	T246	Contractor:	Geobor-Salag A/S
Date Started:	8/2/2004	Pulse EM Survey:	N			Logged by:	Trevor Blair
Date Completed:	8/12/2004	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,805,506.83	Local Northing:	5735.23
UTM Easting:	535,162.74	Local Easting:	8197.58
Elevation:	1001.62		

Collar Dip:	-45.00
Collar Azimuth:	50.00
Length:	93.40

Comments

Purpose: Test UTEM conductor ESP_05_04. Conductivity = 500 Siemens

Result: Hole intersected oikocrystic pyroxenite and weakly mineralized norite bounded uphole and downhole by anorthosite/anorthositic gabbro. Two zones of weak mineralization were intersected:

1) 31.50-36.66m (gabbro): 5-15% sulphides (disseminations & cm scale remobilized veinlets); best nickel value was 0.17% Ni / 1.08m (35.19-36.27m)
2) 61.30-68.03m (norite): 10-15% sulphides (mm to cm scale remobilized veinlets, disseminations and patches); all nickel values <0.10%.

Lithological nterpretation: Intersected mineralized and unmineralized noritic and ultramafic rocks (coincident with M. Heim's rock suite 2b) bounded by anorthosites / anorthositic gabbros (Heim's rock suite 2a).

Detailed Lithology

From	To		Lithology
0.00	3.00	C	**Casing** 0.00-1.50m of OVB 1.50-3.00m cement from lost hole ES2004-02. Redrill of hole ES2004-02 deviated from cement and rock was cored from 3.00m and beyond.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
3.00	37.65	**4 Anorthosite / Anorthositic Gabbro**

Medium grained, white and dark green, non-magnetic, anorthosite / anorthositic gabbro composed of 70-75% plagioclase, 20-25% pyroxene, 5% biotite and trace to 3% garnets. This unit contains 5-10% mm scale, dark green to black, amorphous veinlets which are at irregular angles to the ca, resulting in a brecciated texture. Proximal to these veinlets the plagioclase has a light green hue (sausseritized). Pyroxene content within the rock unit increases downhole towards the lower contact resulting in a gabbroic composition. Melanocratic and leucocratic constituents appear to be segregated in dm to m scale horizons with gradational contacts between the two (compositional banding?).

This unit is crosscut by dm to m scale, fine grained, non-magnetic, black and white, homogenous gabbronorite dykes. Contact relationships are sharp but irregular (see minor units). These dykes contain 50-60% pyroxenes (light green to black) and 40-50% plagioclase.

The upper portion of this unit locally contains fine grained disseminated pyrrhotite (non-magnetic) with sulphide content increasing below 30.50m to 3-5%. These sulphides appear as fine grained disseminations as well as cm scale remobilized veinlets (with chalcopyrite).

The lower contact of this unit is lost within broken core but is obvious as plagioclase within the groundmass is absent, as well as an increased magnetic susceptibility.

Interpretation: Consistent with Heim's Rock Suite 2a (Anorthosite - Anorthositic Gabbro), crosscut by late gabbronorite bodies (Rock Suite 3).

Minor Interval

3.00 5.60 **4 Anorthosite / Anorthositic Gabbro**

Drill core is incomplete as cement from ES2004-02 acted as a wedge. The drill core is virtually a semi-barrel with the final scallop appearing at 5.60m. At this point, ES2004-02A has deviated 46mm from hole ES2004-02.

Minor Interval

5.60 7.00 **7a Gabbronorite**

See major unit for rock description.

The upper contact of this unit is sharp at approximately 65 degrees tca with the lower contact at 50 degrees tca.

Minor Interval

12.00 12.67 **7a Gabbronorite**

See major unit for rock description.

The upper contact is sharp but lost within broken core with the lower contact sharp but irregular.

Mineralization 31.50 32.65 7.0% Po Pyrrhotite
VN Veined
5 individual cm scale remobilized veinlets

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00084	30.50	31.50	1.00	0.03	0.03	0.01	0.80	0.01	0.01	0.03	0.25
PG00085	31.50	32.65	1.15	0.03	0.03	0.01	2.32	0.01	0.01	0.01	0.25
PG00086	32.65	34.09	1.44	0.03	0.03	0.02	0.72	0.01	0.01	0.02	0.25
PG00087	34.09	35.19	1.10	0.03	0.03	0.01	0.39	0.01	0.01	0.01	0.25
PG00088	35.19	36.27	1.08	0.17	0.05	0.04	15.80	0.02	0.09	0.04	0.60
PG00089	36.27	36.66	0.39	0.12	0.17	0.02	11.20	0.01	0.03	0.01	0.25
PG00090	36.66	37.65	0.99	0.03	0.06	0.01	1.33	0.01	0.01	0.02	0.25

Detailed Lithology								Assay Data											
From	To	Lithology						Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Mineralization	36.27	36.66	15.0%	Po D remobilized	Pyrrhotite Disseminated												
		Mineralization	36.27	36.66	1.0%	Cpy D	Chalcopyrite Disseminated												
		Structure	28.20	28.21	Sm	General Foliation													
		Structure	29.50	29.51	Sm	General Foliation													
37.65	56.55	**6c Oikocrystic Pyroxenite** Fine grained, weakly foliated, strongly magnetic, dark grey, moderately serpentinized oikocrystic pyroxenite. This unit contains 10-20% mm scale dark green to black serpentine veinlets at ~60 degrees to the core axis. Pyroxenes occur as mm scale, light to dark grey oikocrysts which are partially replaced by serpentine and magnetite. Unit is likely a transitional unit between a 'good' oikocrystic pyroxenite and a 'good' peridotite. This unit contains trace disseminated sulphides The lower contact of this unit was based on the percentage of plagioclase within the matrix but is lost within broken core. Interpretation: Consistent with Heim's Rock Suite 2b (Peridotite - Pyroxenite).							PG00091	42.48	43.48	1.00	0.10	0.03	0.03	0.08	0.01	0.01	0.01	0.25
		Minor Interval																	
		51.82	56.06	**6f Norite** Fine grained, moderately magnetic, massive, homogenous norite containing 10% mm scale, subhedral, white plagioclase crystals within a dark green pyroxenitic groundmass (differentiated horizon to ultramafic body intersected uphole). This unit is unmineralized. The unit contains gradational contacts and were based on the percentage of plagioclase.																
		Alteration	37.65	51.82	SERP P M	Serpentine Pervasive Moderate													
		Structure	42.85	42.86	Sm	General Foliation													
		Structure	44.73	44.74	Sm	General Foliation													

Detailed Lithology

From	To	Lithology
56.55	68.03	**6f Norite** Fine to locally medium grained, dark to light blue-grey, weakly magnetic, weakly foliated norite composed of 55-70% pyroxenes and 30-45% plagioclase (within groundmass as well as mm to cm scale remelt bands). From 64.95-68.03m, mafic mineral content increases and unit is a melano-norite grading downhole to an ultramafic. This unit contains dm to m scale horizons of anorthosite / anorthositic gabbro (rafts?) which are fine to medium grained, white-dark brown, non-magnetic, weakly foliated and composed of ~50% plagioclase and ~50% pyroxenes (see minor units for contact relationships and lengths). Sulphides (10-15% pyrrhotite, pyrite +-chalcopyrite) occur as fine grained disseminations and mm scale amoeboid patches which appear to have been locally remobilized resulting in mm to cm scale massive and semi-massive veinlets. Mm scale semi-angular to semi-rounded clasts of mafic (norite) to felsic (anorthosite) composition occur within larger sulphide veinlets. Non-magnetic pyrrhotite is the prominent sulphide, although local concentrations of brassy-yellow pyrite are generally located within thicker sulphide veinlets, and mm scale local veinlets of chalcopyrite. The lower contact of this unit is sharp at 35 degrees tca along an anorthosite unit. **Minor Interval** 58.41 59.70 **4 Anorthosite / Anorthositic Gabbro** See major units for rock description. The upper and lower contacts of this unit are sharp at 65 and 45 degrees tca, respectively. **Mineralization** 61.30 68.03 12.5% Po Pyrrhotite STR Stringers 10-15% disseminated, patchy, semi-massive veinlets, massive veinlets **Mineralization** 61.30 68.03 2.0% Py Pyrite MG Medium Grained **Mineralization** 61.30 68.03 0.5% Cpy Chalcopyrite F Fracture-Controlled

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00092	56.55	57.03	0.48	0.03	0.03	0.02	0.62	0.01	0.01	0.01	0.25
PG00093	57.03	57.67	0.64	0.05	0.03	0.01	7.49	0.01	0.02	0.02	0.60
PG00094	57.67	58.41	0.74	0.03	0.03	0.01	0.36	0.01	0.01	0.01	0.25
PG00095	60.80	61.30	0.50	0.03	0.03	0.03	1.22	0.12	0.01	0.01	0.25
PG00096	61.30	62.30	1.00	0.08	0.08	0.02	13.00	0.01	0.01	0.02	0.60
PG00097	62.30	63.30	1.00	0.06	0.11	0.03	11.40	0.01	0.01	0.01	0.60
PG00098	63.30	64.30	1.00	0.07	0.08	0.01	12.80	0.01	0.02	0.02	0.25
PG00099	64.30	65.30	1.00	0.06	0.08	0.02	10.70	0.01	0.01	0.01	0.25
PG00101	65.30	66.30	1.00	0.07	0.08	0.02	11.70	0.01	0.02	0.02	0.25
PG00102	66.30	67.30	1.00	0.05	0.07	0.01	10.40	0.01	0.01	0.03	0.60
PG00103	67.30	68.03	0.73	0.03	0.03	0.01	6.01	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
68.03	93.40	**4 Anorthosite / Anorthositic Gabbro** Fine to medium grained, green to grey to white, non-magnetic, weakly to moderately foliated anorthositic gabbro composed of 30-45% plagioclase (greenish hue - saussentized) and 55-70% pyroxenes. This unit contains dm scale compositional segregation between mafic and felsic horizons. The unit contains local trace disseminated pyrrhotite. The lower contact of this unit is unknown as the hole was completed. Early completion due to broken casing in the hole. **Structure** 91.40 91.41 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00104	68.03	68.73	0.70	0.03	0.03	0.02	6.69	0.01	0.01	0.02	0.25
PG00105	68.73	69.33	0.60	0.03	0.03	0.01	1.68	0.01	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2004-02A

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00084	30.50	31.50	1.00	0.03	0.03	0.01	0.80	0.03	0.01	0.01	0.25																
PG00085	31.50	32.65	1.15	0.03	0.03	0.01	2.32	0.01	0.01	0.01	0.25																
PG00086	32.65	34.09	1.44	0.03	0.03	0.02	0.72	0.02	0.01	0.01	0.25																
PG00087	34.09	35.19	1.10	0.03	0.03	0.01	0.39	0.01	0.01	0.01	0.25																
PG00088	35.19	36.27	1.08	0.17	0.05	0.04	15.80	0.04	0.02	0.09	0.60																
PG00089	36.27	36.66	0.39	0.12	0.17	0.02	11.20	0.01	0.01	0.03	0.25																
PG00090	36.66	37.65	0.99	0.03	0.06	0.01	1.33	0.02	0.01	0.01	0.25																
PG00091	42.48	43.48	1.00	0.10	0.03	0.03	0.08	0.01	0.01	0.01	0.25																
PG00092	56.55	57.03	0.48	0.03	0.03	0.02	0.62	0.01	0.01	0.01	0.25																
PG00093	57.03	57.67	0.64	0.05	0.03	0.01	7.49	0.02	0.01	0.02	0.60																
PG00094	57.67	58.41	0.74	0.03	0.03	0.01	0.36	0.01	0.01	0.01	0.25																
PG00095	60.80	61.30	0.50	0.03	0.03	0.03	1.22	0.01	0.12	0.01	0.25																
PG00096	61.30	62.30	1.00	0.08	0.08	0.02	13.00	0.02	0.01	0.01	0.60																
PG00097	62.30	63.30	1.00	0.06	0.11	0.03	11.40	0.01	0.01	0.01	0.60																
PG00098	63.30	64.30	1.00	0.07	0.08	0.01	12.80	0.02	0.01	0.02	0.25																
PG00099	64.30	65.30	1.00	0.06	0.08	0.02	10.70	0.01	0.01	0.01	0.25																
PG00101	65.30	66.30	1.00	0.07	0.08	0.02	11.70	0.02	0.01	0.02	0.25																
PG00102	66.30	67.30	1.00	0.05	0.07	0.01	10.40	0.03	0.01	0.01	0.60																
PG00103	67.30	68.03	0.73	0.03	0.03	0.01	6.01	0.01	0.01	0.01	0.25																
PG00104	68.03	68.73	0.70	0.03	0.03	0.02	6.69	0.02	0.01	0.01	0.25																
PG00105	68.73	69.33	0.60	0.03	0.03	0.01	1.68	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2004-02A

Depth	Conductivity (Siemens)	COMMENTS
36.60	750.00	Range of 600-950 Siemens
57.05	999.00	1050 siemens - 1750 siemens (cut core) -7cm wide ms veinlet
62.25	750.00	1750 siemens (cut core)
63.10	650.00	1025 siemens (cut core)
64.10	250.00	500 siemens (cut core)
65.70	750.00	1300 siemens (cut core)
66.70	650.00	1500 siemens (cut core)

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-02A

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
3.50	0.14	
4.50	0.11	
5.50	0.56	
6.50	0.60	
7.50	0.07	
8.50	0.51	
9.50	0.18	
10.50	0.34	
11.50	0.16	
12.50	0.52	
13.50	0.16	
14.50	0.30	
15.50	0.34	
16.50	0.19	
17.50	2.03	
18.50	0.30	
19.50	0.22	
20.50	0.23	
21.50	0.54	
22.50	0.42	
23.50	0.52	
24.50	0.33	
25.50	0.49	
26.50	0.32	
27.50	1.42	
28.50	0.45	
29.50	1.50	
30.50	0.98	
31.50	0.87	
32.50	1.04	
33.50	0.45	
34.50	0.41	
35.50	0.52	
36.50	1.35	
37.50	0.28	
38.50	13.60	
39.50	26.60	
40.50	22.80	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-02A
41.50	29.70	
42.50	38.50	
43.50	38.60	
44.50	26.90	
45.50	30.70	
46.50	32.00	
47.50	15.10	
48.50	22.20	
49.50	32.00	
50.50	29.40	
51.50	32.80	
52.50	0.87	
53.50	0.41	
54.50	15.90	
55.50	9.19	
56.50	0.33	
57.50	0.78	
58.50	0.49	
59.50	0.17	
60.50	0.27	
61.50	0.67	
62.50	0.46	
63.50	0.67	
64.50	1.34	
65.50	1.71	
66.50	0.65	
67.50	0.75	
68.50	1.05	
69.50	1.00	
70.50	0.36	
71.50	0.68	
72.50	0.37	
73.50	0.27	
74.50	0.28	
75.50	0.34	
76.50	0.61	
77.50	1.26	
78.50	0.28	
79.50	0.37	
80.50	0.34	
81.50	0.24	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-02A

82.50	0.27	
83.50	0.24	
84.50	0.31	
85.50	0.27	
86.50	0.19	
87.50	0.60	
88.50	0.31	
89.50	0.34	
90.50	0.73	
91.50	4.17	
92.50	4.53	
93.40	0.63	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-02A

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
3.00	6.00	11	72	N	
6.00	9.00	45	93	N	
9.00	12.00	61	78	N	
12.00	15.00	54	100	N	
15.00	18.00	62	100	N	
18.00	21.00	69	95	N	
21.00	24.00	33	100	N	
24.00	27.00	29	93	N	
27.00	30.00	55	100	N	
30.00	33.00	70	100	N	
33.00	36.00	33	100	N	
36.00	39.00	30	100	N	
39.00	42.00	70	100	N	
42.00	45.00	84	100	N	
45.00	48.00	49	100	N	
48.00	51.00	53	100	N	
51.00	54.00	38	100	N	
54.00	57.00	82	100	N	
57.00	60.00	62	100	N	
60.00	63.00	72	100	N	
63.00	66.00	83	100	N	
66.00	69.00	73	100	N	
69.00	72.00	63	100	N	
72.00	75.00	89	100	N	
75.00	78.00	80	100	N	
78.00	81.00	88	100	N	
81.00	84.00	86	100	N	
84.00	87.00	67	100	N	
87.00	90.00	55	100	N	
90.00	93.40	74	100	N	EOH at 93.40m

Detailed Log

Hole Number: **ES2004-03**

Units: METRIC

Project Name: Espedalen	Collar Survey: Y	Plugged N	
Project Number: 300	Mulitshot Survey: N	Hole Size: T246	
	Pulse EM Survey: N		
Date Started: 8/10/2004	Casing: Left in Hole, capped		
Date Completed: 9/1/2004	Location: Surface		

UTM WGS 84 Coord		Local Coord	
UTM Northing:	9,325,372.15	Local Northing:	5324.60
UTM Easting:	3,731,798.97	Local Easting:	4999.46
Elevation: 967.98			

Core Storage:	Strand Fjellstue	Collar Dip:	-59.00
Contractor:	Geobor-Salag A/S	Collar Azimuth:	230.00
		Length:	117.30
Logged by:	Trevor Blair		

Comments

Purpose: Test UTEM conductor ESP_09_07. Conductivity = 600, 900 Siemens (2 plates)

Result: Hole intersected a thick package of anorthosite/anorthositic gabbro but did not reach target depth and was abandoned. Second hole was collared and re-drilled nearby as ES2004-16 by second drilling contractor. No samples taken.

Detailed Lithology

From	To	Lithology
0.00	2.90	**C Casing** CASING

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
2.90	117.30	**4 Anorthosite / Anorthositic Gabbro**												

Medium grained, white-dark green, non-magnetic, moderately to strongly foliated anorthosite to anorthositic gabbro composed of 60% plagioclase and 40% pyroxenes. Segregational banding is present on a cm scale resulting in melanocratic and leucocratic horizons. This unit is unmineralized. Anorthositic rocks are cross-cut by cm to dm scale ultramafic (eg. 63.85-64.1m, 71.9-72.1m, 86.3-86.55m, 87.2-87.7m) and mafic dykes (eg. 49.5-49.9m, 98.1-99.7m (sheared). Ultramafic dykes locally contain po stringers (see minor intervals).

48.9m: 10cm wide white quartz vein; apparently lost water at this depth.
55.6-56.6m: Lost core due to broken drill rod.

NOTE: Overall condition of core in this hole is bad with abundant broken, mis-matched and ground core. Condition largley attributed to improper drilling and core barrel emptying techniques. Disking of core likely due to high drilling pressure which also attributes to core blockages.

Magnetic suscpetibility: < 1

Interpretation: Consistent with Heim's Rock Suite 2a (Anorthosite - Anorthositic Gabbro).

Minor Interval

76.60 77.20 **6e Ultramafic Schist**
Dark green, chloritized ultramafic schist containing 3-5% po stringers. Core is badly broken and ground.

Minor Interval

78.80 80.35 **6e Ultramafic Schist**
green chloritized ultramafic schist containing 1-2% po stringers.

Minor Interval

91.75 92.10 **6 Undivided Ultramafic Intrusive**
Dark grey, serpentinized ultramafic containing 2-3% fracture-controlled po.

Structure	7.35	7.36	Sm	General Foliation
Structure	29.30	29.31	Sm	General Foliation
Structure	38.40	38.41	Sm	General Foliation
Structure	55.30	55.31	Sm	General Foliation
Structure	58.40	58.41	Sm	General Foliation
Structure	71.80	71.81	Sm	General Foliation
Structure	75.20	75.21	Sm	General Foliation
Structure	85.10	85.11	Sm	General Foliation
Structure	89.80	89.81	Sm	General Foliation
Structure	94.00	94.01	Sm	General Foliation

Detailed Lithology						Assay Data											
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Structure	100.30	100.31	Sm General Foliation												
		Structure	106.50	106.51	Sm General Foliation												
		Structure	113.30	113.31	Sm General Foliation												

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-03

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
3.50	0.16	0 - 2.9 Casing
4.50	0.22	
5.50	0.22	
6.50	0.40	
7.50	0.20	
8.50	0.27	
9.50	0.18	
10.50	0.22	
11.50	0.27	
12.50	0.22	
13.50	0.25	
14.50	0.20	
15.50	0.20	
16.50	0.22	
17.50	0.16	
18.50	0.20	
19.50	0.20	
20.50	0.19	
21.50	0.24	
22.50	0.34	
23.50	0.29	
24.50	0.21	
25.50	0.22	
26.50	0.21	
27.50	0.22	
28.50	0.11	
29.50	0.19	
30.50	0.20	
31.50	0.67	
32.50	0.21	
33.50	0.66	
34.50	0.26	
35.50	0.32	
36.50	0.15	
37.50	0.26	
38.50	0.37	
39.50	0.22	
40.50	0.15	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-03

41.50	0.20	
42.50	0.21	
43.50	0.21	
44.50	0.15	
45.50	0.13	
46.50	0.29	
47.50	0.13	
48.50	0.12	
49.50	0.37	
50.50	0.19	
51.50	0.10	
52.50	0.12	
53.50	0.21	
54.50	0.06	
55.50		no reading
56.50	0.16	
57.50	0.40	
58.50	0.25	
59.50	0.08	
60.50	0.15	
61.50	0.35	
62.50		No Reading?
63.50	0.21	
64.50	0.43	
65.50	0.20	
66.50	0.02	
67.50	0.34	
68.50	0.10	
69.50	0.09	
70.50	0.03	
71.50	0.06	
72.50	0.11	
73.50	0.06	
74.50	0.05	
75.50	0.05	
76.50	0.16	
77.50	0.59	
78.50	0.33	
79.50	0.58	
80.50	0.11	
81.50	0.18	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-03

82.50	0.06	
83.50	0.08	
84.50	0.09	
85.50	0.36	
86.50	0.12	
87.50	0.28	
88.50	0.41	
89.50	0.17	
90.50	0.06	
91.50	0.18	
92.50	0.43	
93.50	0.02	
94.50	0.08	
95.50	0.08	
96.50	0.13	
97.50	0.05	
98.50	0.43	
99.50	0.16	
100.50	0.12	
101.50	0.04	
102.50	0.05	
103.50	0.42	
104.50	0.12	
105.50	0.03	
106.50	0.03	
107.50	0.16	
108.50	0.06	
109.50	0.13	
110.50	0.06	
111.50	0.05	
112.50	0.04	
113.50	0.10	
114.50	0.02	
115.50	0.02	
116.50	0.02	117.3 End of Hole
117.50		

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-03

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
0.00	2.90	0	0	N	
2.90	6.00	16	100	N	
6.00	9.00	23	100	N	
9.00	12.00	60	100	N	
12.00	15.00	53	100	N	
15.00	18.00	54	100	N	
18.00	21.00	43	100	N	
21.00	24.00	68	100	N	
24.00	27.00	68	100	N	
27.00	30.00	67	100	N	
30.00	33.00	63	100	N	
33.00	36.00	56	100	N	
36.00	39.00	73	100	N	
39.00	42.00	62	100	N	
42.00	45.00	58	100	N	
45.00	48.00	57	100	N	
48.00	51.00	37	95	N	
51.00	54.00	35	90	N	
54.00	57.00	19	70	N	
57.00	60.00	36	100	N	
60.00	63.00	44	100	N	
63.00	66.00	50	100	N	
66.00	69.00	32	100	N	
69.00	72.00	56	100	N	
72.00	75.00	26	95	N	
75.00	78.00	58	100	N	
78.00	81.00	24	100	N	
81.00	84.00	29	100	N	
84.00	87.00	34	100	N	
87.00	90.00	16	100	N	
90.00	93.00	13	100	N	
93.00	96.00	9	100	N	
96.00	99.00	32	100	N	
99.00	102.00	49	100	N	
102.00	105.00	54	100	N	
105.00	108.00	67	100	N	
108.00	111.00	64	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-03

111.00	114.00	45	100	N	
114.00	117.27	37	100	N	

Detailed Log

Hole Number: **ES2004-04** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	T246	Contractor:	Geobor-Salag A/S
Date Started:	8/18/2204	Pulse EM Survey:	N			Logged by:	Trevor Blair
Date Completed:	9/1/2004	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	1,474,768.39	Local Northing:	6124.91
UTM Easting:	2,486,022.23	Local Easting:	5595.68
Elevation:	1255.41		

Collar Dip:	-75.00
Collar Azimuth:	220.00
Length:	32.00

Comments

Purpose: Test UTEM conductor ESP_08_05. Conductivity = 300 Siemens

Result: Hole collared in ultramafic rocks but was not completed to target depth and was abandoned. Efforts to pull the rods out of the hole were unsuccessful. Target not tested.

Assays: No samples taken

Detailed Lithology

From	To	Lithology
0.00	4.50	**C Casing** CASING
4.50	32.00	**6 Undivided Ultramafic Intrusive** Medium grained oikocrystic peridotite consisting of 80-85% dark grey to black olivine, 10-20% light grey pyroxene in groundmass and as oikocrysts up to 1.5cm in size, 3% fine grained magnetite and rare trace fine grained sulphide. Reddish brown fine grained (ortho?) pyroxene observed locally. Magnetic susceptibility: 15-65, averages 25-30.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-04

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
4.50	6.00	25	100	N	Broken, locally ground
6.00	9.00	49	100	N	Broken intervals; poor recovery
9.00	12.00	23	100	N	Badly broken
12.00	15.00	53	100	N	Broken 13-14.5m
15.00	18.00	72	100	N	Good run
18.00	21.00	26	100	N	Broken 18-20
21.00	24.00	70	100	N	Good run
24.00	27.00	71	100	N	Good run
27.00	30.00	61	100	N	Broken 28.7-29
30.00	32.00	42	100	N	Ground @31.8m; End of Hole @ 32m

Detailed Log

Hole Number: **ES2004-05** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Geo Drilling A/S
Date Started:	8/16/2004	Pulse EM Survey:	Y			Logged by:	Yannick Beaudoin
Date Completed:	8/18/2004	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	9,325,372.15	Local Northing:	4421.91
UTM Easting:	3,731,798.97	Local Easting:	7705.33
Elevation:	967.98		

Collar Dip:	-79.00
Collar Azimuth:	230.00
Length:	119.40

Comments

Purpose: Test UTEM conductor ESP_15_15. Conductivity = 800 Siemens

Result: Hole collared in mineralized peridotite bounded downhole by a fine grained mafic unit in turn followed by anorthosite/anorthositic gabbro. Mineralization in the UM consisted of 5-20% net-textured to disseminated sulphides and minor remobilized veinlets. A narrow zone with increased sulphide content (20-25%) was intersected adjacent to the downhole contact of the ultramafic body.

Assays: 0.45% Ni, 0.20% Cu, 0.03% Co / 34.40m (9.60-40.00m)
0.90% Ni, 0.27% Cu, 0.06% Co / 0.75m (53.40-54.15m)

Borehole UTEM: In-hole response centered between 20m and 30m.

Lithological interpretation: Sheared anorthositic and fine grained mafic country rocks intruded by mineralized ultramafic.

Detailed Lithology

From	To	Lithology
0.00	9.40	**C Casing** 0.8 meters of casing core recovered; cased in mineralized peridotite (see Major Units 6b for full description). 10-15% sulphides; visually ressembles net textured mineralization; pyrrhotite with trace chalcopyrite; bright flecks in pyrrhotite may be pentlandite

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00106	8.80	9.60	0.80	0.41	0.09	0.03	4.03	0.02	0.01	0.02	0.60

Detailed Lithology

From	To	Lithology
9.40	54.16	**6b Peridotite**

Medium to coarse grained, weakly foliated, strongly magnetic, dark grey, moderately serpentinized peridotite with large cm scale sub-hedral to sub-rounded pyroxene oikocrysts. Oikocrysts are light to dark grey and are partially replaced by serpentine and magnetite. Unit is transitional between a 'good' oikocrystic pyroxenite and a 'good' peridotite.

Visually, the unit looks brecciated due to the distribution of the oikocrysts.

Unit is cut by cm to dm scale talc/serpentinite veins.

Between 40m and 45.5m, a more sheared and serpentinized zone is observed. Serpentine/talc veins permeate this zone with some veins containing good concentrations of remobilized chalcopyrite. The general sulphide content of this zone is <5%. This zone marks a notable decrease in sulphide content between the previous portion of the unit and the section beyond the zone.

The lower contact is at 82 degrees relative to the core axis (nearly perpendicular).

Sulphide mineralization throughout the unit averages between 15 and 20%. Visually mineralization appears as net-textured. Pyrrhotite is the dominant sulphide with trace to minor chalcopyrite and what appears to be flecks of pentlandite within the pyrrhotite. Variability in sulphide content is broken down under the 'Mineralization' header.

From 53.3m to 54.16 (end of unit), grain size diminishes and sulphide content increases to between 35-40%.

Interpretation: Consistent with Heim's Rock Suite 2b (Peridotite - Pyroxenite).

Mineralization	9.40	30.00	17.0%	Po	Pyrrhotite
				NT	Net-Textured
				15-20%; trace cpy	
Mineralization	30.00	39.40	8.0%	Po	Pyrrhotite
				D	Disseminated
				looks like net-textured; trace cpy	
Mineralization	39.40	53.30	3.0%	Po	Pyrrhotite
				D	Disseminated
Mineralization	53.30	54.16	38.0%	Po	Pyrrhotite
				NT	Net-Textured
				35-40%; minor cpy	
Alteration	9.60	54.16	TL	Talc	
			V	Vein	
			M	Moderate	
Structure	39.40	45.50	S	Shear	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00107	9.60	10.00	0.40	0.30	0.15	0.02	2.37	0.01	0.01	0.01	0.25
PG00108	10.00	11.00	1.00	0.32	0.11	0.04	2.46	0.01	0.01	0.01	0.25
PG00109	11.00	12.00	1.00	0.51	0.16	0.04	3.97	0.01	0.01	0.01	0.25
PG00110	12.00	13.00	1.00	0.77	0.36	0.06	5.39	0.02	0.02	0.03	0.60
PG00111	13.00	14.00	1.00	0.56	0.17	0.04	4.20	0.02	0.01	0.01	0.25
PG00112	14.00	15.00	1.00	0.62	0.25	0.05	4.86	0.01	0.02	0.02	0.60
PG00113	15.00	16.00	1.00	0.33	0.14	0.01	2.50	0.01	0.01	0.02	0.25
PG00114	16.00	17.00	1.00	0.37	0.28	0.01	3.24	0.02	0.01	0.03	0.60
PG00115	17.00	18.00	1.00	0.40	0.19	0.02	2.77	0.03	0.01	0.01	0.80
PG00116	18.00	19.00	1.00	0.35	0.16	0.01	2.95	0.02	0.01	0.01	0.25
PG00117	19.00	20.00	1.00	0.52	0.17	0.03	4.11	0.02	0.01	0.01	0.25
PG00118	20.00	21.00	1.00	0.58	0.14	0.05	4.25	0.01	0.02	0.01	0.25
PG00119	21.00	22.00	1.00	0.51	0.28	0.04	4.37	0.02	0.01	0.02	0.25
PG00120	22.00	23.00	1.00	0.45	0.18	0.04	3.52	0.02	0.02	0.02	0.25
PG00121	23.00	24.00	1.00	0.64	0.21	0.03	3.45	0.01	0.02	0.05	0.25
PG00122	24.00	25.00	1.00	0.44	0.13	0.03	4.39	0.02	0.02	0.02	0.25
PG00123	25.00	26.00	1.00	0.50	0.15	0.03	3.82	0.01	0.01	0.02	8.50
PG00124	26.00	27.00	1.00	0.53	0.14	0.04	4.18	0.04	0.04	0.01	0.60
PG00126	27.00	28.00	1.00	0.58	0.23	0.03	4.49	0.01	0.04	0.02	0.25
PG00127	28.00	29.00	1.00	0.58	0.29	0.04	4.34	0.04	0.05	0.02	0.25
PG00128	29.00	30.00	1.00	0.49	0.23	0.03	3.84	0.03	0.01	0.01	0.25
PG00129	30.00	31.00	1.00	0.44	0.20	0.04	3.42	0.01	0.01	0.01	0.60
PG00130	31.00	32.00	1.00	0.42	0.19	0.03	2.89	0.01	0.01	0.02	0.25
PG00131	32.00	33.00	1.00	0.33	0.16	0.02	2.47	0.01	0.01	0.01	0.25
PG00132	33.00	34.00	1.00	0.34	0.17	0.02	2.57	0.02	0.02	0.02	0.25
PG00133	34.00	35.00	1.00	0.33	0.24	0.03	2.28	0.01	0.01	0.02	0.60
PG00134	35.00	36.00	1.00	0.31	0.12	0.02	2.25	0.01	0.01	0.01	0.25
PG00135	36.00	37.00	1.00	0.33	0.12	0.01	2.29	0.01	0.01	0.01	0.25
PG00136	37.00	38.00	1.00	0.30	0.14	0.04	2.04	0.01	0.01	0.01	0.25
PG00137	38.00	39.00	1.00	0.36	0.14	0.03	2.53	0.01	0.01	0.01	0.25
PG00138	39.00	39.40	0.40	0.32	0.12	0.03	2.33	0.02	0.01	0.02	0.25
PG00139	39.40	40.00	0.60	0.34	0.24	0.03	2.86	0.01	0.01	0.01	0.60
PG00140	40.00	41.00	1.00	0.22	0.10	0.01	1.43	0.01	0.01	0.01	0.60
PG00141	41.00	42.00	1.00	0.19	0.10	0.02	1.32	0.01	0.01	0.01	0.25
PG00142	42.00	43.00	1.00	0.21	0.07	0.01	1.59	0.01	0.01	0.01	0.25
PG00143	43.00	44.00	1.00	0.18	0.16	0.02	1.44	0.01	0.01	0.02	0.50
PG00144	44.00	45.00	1.00	0.15	0.06	0.01	0.81	0.01	0.01	0.01	0.25
PG00145	45.00	46.00	1.00	0.24	0.12	0.02	1.79	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology			
		Structure	54.15	54.16	LC Lower Contact

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00146	46.00	47.00	1.00	0.27	0.10	0.02	1.65	0.01	0.01	0.02	0.25
PG00147	47.00	48.00	1.00	0.20	0.08	0.01	1.17	0.01	0.01	0.01	0.25
PG00148	48.00	49.00	1.00	0.17	0.08	0.01	1.08	0.01	0.01	0.01	0.25
PG00149	49.00	50.00	1.00	0.13	0.03	0.01	0.75	0.01	0.01	0.01	0.25
PG00151	50.00	51.00	1.00	0.10	0.03	0.02	0.41	0.01	0.01	0.01	0.25
PG00152	51.00	52.00	1.00	0.23	0.09	0.03	1.46	0.01	0.01	0.02	0.60
PG00153	52.00	53.40	1.40	0.22	0.12	0.01	1.85	0.01	0.01	0.01	0.25
PG00154	53.40	54.15	0.75	0.90	0.27	0.06	8.39	0.03	0.01	0.01	0.60
PG00155	54.15	55.00	0.85	0.23	0.11	0.02	1.22	0.02	0.02	0.01	0.25

Detailed Lithology

From	To	Lithology
54.16	77.58	**10a Massive flows** Mafic volcanic sequence Unit dominated by fine to medium grained, altered (chloritic?) mafic volcanic flows (or sills??). The upper contact (with the peridotite) is defined by a highly sheared unit that may represent a sheared version of the volcanic, or a volcaniclastic (tuff?) sediment. Core axis to foliation angle is 84 degrees. 1-3% pyrite mineralization is observed as veinlets, disseminated and along fracture planes. The lower contact is characterized by a unit of thinly layered, deformed (soft sediment deformation??) volcanic sediments. Pyrite occurs along fracture plains, in disseminated form and in veinlets. Lower contact occurs at 55 degrees with respect to core axis. Two separate ultramafic units intruded the volcanic package (see Minor Units). Interpretation: This unit is not consistent with units mapped by Heim. Since this hole was drilled low in the topography of the complex, these units may represent previously unmapped (unexposed elsewhere) units of the Espedalen complex. **Minor Interval** 66.17 68.90 **6e Ultramafic Schist** Highly sheared, fine grained pyroxenitic unit; variable foliation from near 90 degree to core axis to 60-65 degrees to core axis. Minor mineralization ~5% Moderately magnetic Fault cuts through at 67.5m **Minor Interval** 73.20 74.62 **6e Ultramafic Schist** Sheared pyroxenitic unit; moderately magnetic. Locally 5-10% mineralization; disseminated and stringer style that give the unit an almost brecciated appearance (locally). Upper contact at ~12 degrees from core axis; lower contact at ~60 degrees to core axis.

Structure 77.57 77.58 LC Lower Contact

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00156	65.70	66.20	0.50	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25
PG00157	66.20	67.00	0.80	0.14	0.08	0.01	2.09	0.01	0.01	0.01	0.25
PG00158	67.00	68.00	1.00	0.11	0.03	0.01	1.17	0.01	0.01	0.01	0.25
PG00159	68.00	68.90	0.90	0.10	0.03	0.01	1.29	0.01	0.01	0.01	0.25
PG00160	68.90	69.90	1.00	0.26	0.11	0.03	0.49	0.01	0.01	0.01	0.25
PG00161	72.80	73.30	0.50	0.09	0.03	0.01	0.71	0.01	0.01	0.01	0.25
PG00162	73.30	74.00	0.70	0.22	0.07	0.03	3.14	0.01	0.01	0.01	0.25
PG00163	74.00	74.60	0.60	0.36	0.12	0.02	4.50	0.01	0.01	0.01	0.25
PG00164	74.60	75.10	0.50	0.11	0.08	0.01	0.47	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
77.58	119.40	**4 Anorthosite / Anorthositic Gabbro** Anorthosite to anorthositic gabbro (mainly anorthositic gabbro). Medium-coarse to medium grained, mottled texture. Locally sheared/tectonized and sausseritized. Core axis to foliation angle consistently lies between 65 and 75 degrees. Locally, pyrite occurs as veinlets and also fills fracture planes. Some disseminated pyrite is also observed. Interpretation: Unit classification based on observation and correlation with similar units from other drill holes (e.g. ES2004-08, 09).											
		Minor Interval											
		83.81 86.52 **10f Mafic dykes** Mafic volcanic/sill Medium grained, non magnetic. Chloritic alteration. Upper and lower contact at 70 degrees to core axis and parallel to foliation in anorthosite.											
		Minor Interval											
		102.52 107.60 **10f Mafic dykes** Mafic volcanic/sill Medium grained, non magnetic. Chloritic alteration. Upper and lower contact at 70 degrees to core axis and parallel to foliation in anorthosite. Contacts characterized by 0.5m long zones of altered anorthosite (Major Unit).											
		Minor Interval											
		113.90 119.40 **10f Mafic dykes** Mafic volcanic/sill Medium grained, non magnetic. Chloritic alteration. Upper and lower contact at 70 degrees to core axis and parallel to foliation in anorthosite. Contacts characterized by 0.5m long zones of altered anorthosite (Major Unit). The unit is cut off by the end of the hole.											

Espedalen - Analysis

Hole Number: ES2004-05

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00106	8.80	9.60	0.80	0.41	0.09	0.03	4.03	0.02	0.02	0.01	0.60																
PG00107	9.60	10.00	0.40	0.30	0.15	0.02	2.37	0.01	0.01	0.01	0.25																
PG00108	10.00	11.00	1.00	0.32	0.11	0.04	2.46	0.01	0.01	0.01	0.25																
PG00109	11.00	12.00	1.00	0.51	0.16	0.04	3.97	0.01	0.01	0.01	0.25																
PG00110	12.00	13.00	1.00	0.77	0.36	0.06	5.39	0.03	0.02	0.02	0.60																
PG00111	13.00	14.00	1.00	0.56	0.17	0.04	4.20	0.01	0.02	0.01	0.25																
PG00112	14.00	15.00	1.00	0.62	0.25	0.05	4.86	0.02	0.01	0.02	0.60																
PG00113	15.00	16.00	1.00	0.33	0.14	0.01	2.50	0.02	0.01	0.01	0.25																
PG00114	16.00	17.00	1.00	0.37	0.28	0.01	3.24	0.03	0.02	0.01	0.60																
PG00115	17.00	18.00	1.00	0.40	0.19	0.02	2.77	0.01	0.03	0.01	0.80																
PG00116	18.00	19.00	1.00	0.35	0.16	0.01	2.95	0.01	0.02	0.01	0.25																
PG00117	19.00	20.00	1.00	0.52	0.17	0.03	4.11	0.01	0.02	0.01	0.25																
PG00118	20.00	21.00	1.00	0.58	0.14	0.05	4.25	0.01	0.01	0.02	0.25																
PG00119	21.00	22.00	1.00	0.51	0.28	0.04	4.37	0.02	0.02	0.01	0.25																
PG00120	22.00	23.00	1.00	0.45	0.18	0.04	3.52	0.02	0.02	0.02	0.25																
PG00121	23.00	24.00	1.00	0.64	0.21	0.03	3.45	0.05	0.01	0.02	0.25																
PG00122	24.00	25.00	1.00	0.44	0.13	0.03	4.39	0.02	0.02	0.02	0.25																
PG00123	25.00	26.00	1.00	0.50	0.15	0.03	3.82	0.02	0.01	0.01	8.50																
PG00124	26.00	27.00	1.00	0.53	0.14	0.04	4.18	0.01	0.04	0.04	0.60																
PG00126	27.00	28.00	1.00	0.58	0.23	0.03	4.49	0.02	0.01	0.04	0.25																
PG00127	28.00	29.00	1.00	0.58	0.29	0.04	4.34	0.02	0.04	0.05	0.25																
PG00128	29.00	30.00	1.00	0.49	0.23	0.03	3.84	0.01	0.03	0.01	0.25																
PG00129	30.00	31.00	1.00	0.44	0.20	0.04	3.42	0.01	0.01	0.01	0.60																
PG00130	31.00	32.00	1.00	0.42	0.19	0.03	2.89	0.02	0.01	0.01	0.25																
PG00131	32.00	33.00	1.00	0.33	0.16	0.02	2.47	0.01	0.01	0.01	0.25																
PG00132	33.00	34.00	1.00	0.34	0.17	0.02	2.57	0.02	0.02	0.02	0.25																
PG00133	34.00	35.00	1.00	0.33	0.24	0.03	2.28	0.02	0.01	0.01	0.60																
PG00134	35.00	36.00	1.00	0.31	0.12	0.02	2.25	0.01	0.01	0.01	0.25																
PG00135	36.00	37.00	1.00	0.33	0.12	0.01	2.29	0.01	0.01	0.01	0.25																

Espedalen - Analysis

Hole Number: ES2004-05

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00136	37.00	38.00	1.00	0.30	0.14	0.04	2.04	0.01	0.01	0.01	0.25																
PG00137	38.00	39.00	1.00	0.36	0.14	0.03	2.53	0.01	0.01	0.01	0.25																
PG00138	39.00	39.40	0.40	0.32	0.12	0.03	2.33	0.02	0.02	0.01	0.25																
PG00139	39.40	40.00	0.60	0.34	0.24	0.03	2.86	0.01	0.01	0.01	0.60																
PG00140	40.00	41.00	1.00	0.22	0.10	0.01	1.43	0.01	0.01	0.01	0.60																
PG00141	41.00	42.00	1.00	0.19	0.10	0.02	1.32	0.01	0.01	0.01	0.25																
PG00142	42.00	43.00	1.00	0.21	0.07	0.01	1.59	0.01	0.01	0.01	0.25																
PG00143	43.00	44.00	1.00	0.18	0.16	0.02	1.44	0.02	0.01	0.01	0.50																
PG00144	44.00	45.00	1.00	0.15	0.06	0.01	0.81	0.01	0.01	0.01	0.25																
PG00145	45.00	46.00	1.00	0.24	0.12	0.02	1.79	0.01	0.01	0.01	0.25																
PG00146	46.00	47.00	1.00	0.27	0.10	0.02	1.65	0.02	0.01	0.01	0.25																
PG00147	47.00	48.00	1.00	0.20	0.08	0.01	1.17	0.01	0.01	0.01	0.25																
PG00148	48.00	49.00	1.00	0.17	0.08	0.01	1.08	0.01	0.01	0.01	0.25																
PG00149	49.00	50.00	1.00	0.13	0.03	0.01	0.75	0.01	0.01	0.01	0.25																
PG00151	50.00	51.00	1.00	0.10	0.03	0.02	0.41	0.01	0.01	0.01	0.25																
PG00152	51.00	52.00	1.00	0.23	0.09	0.03	1.46	0.02	0.01	0.01	0.60																
PG00153	52.00	53.40	1.40	0.22	0.12	0.01	1.85	0.01	0.01	0.01	0.25																
PG00154	53.40	54.15	0.75	0.90	0.27	0.06	8.39	0.01	0.03	0.01	0.60																
PG00155	54.15	55.00	0.85	0.23	0.11	0.02	1.22	0.01	0.02	0.02	0.25																
PG00156	65.70	66.20	0.50	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25																
PG00157	66.20	67.00	0.80	0.14	0.08	0.01	2.09	0.01	0.01	0.01	0.25																
PG00158	67.00	68.00	1.00	0.11	0.03	0.01	1.17	0.01	0.01	0.01	0.25																
PG00159	68.00	68.90	0.90	0.10	0.03	0.01	1.29	0.01	0.01	0.01	0.25																
PG00160	68.90	69.90	1.00	0.26	0.11	0.03	0.49	0.01	0.01	0.01	0.25																
PG00161	72.80	73.30	0.50	0.09	0.03	0.01	0.71	0.01	0.01	0.01	0.25																
PG00162	73.30	74.00	0.70	0.22	0.07	0.03	3.14	0.01	0.01	0.01	0.25																
PG00163	74.00	74.60	0.60	0.36	0.12	0.02	4.50	0.01	0.01	0.01	0.25																
PG00164	74.60	75.10	0.50	0.11	0.08	0.01	0.47	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2004-05

Depth	Conductivity (Siemens)	COMMENTS
4.20	372.50	cut surface 417.5
6.20	59.90	cut surface 84.36
9.40	22.20	cut surface 24.42
20.30	108.70	cut surface 148.27
23.60	157.60	cut surface 168.7
25.40	88.80	cut surface 119.8
28.50	210.90	cut surface 321.9
29.50	77.70	cut surface 104.3
53.50	195.10	
53.70	108.70	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-05

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
9.50		0-9.5m casing
9.50	14.90	
10.50	24.80	
11.50	13.90	
12.50	20.90	
13.50	35.60	
14.50	8.43	
15.50	26.20	
16.50	4.52	
17.50	7.02	
18.50	35.40	
19.50	23.80	
20.50	5.24	
21.50	4.50	
22.50	79.70	
23.50	101.00	
24.50	194.00	
25.50	56.50	
26.50	78.20	
27.50	87.10	
28.50	93.40	
29.50	119.00	
30.50	110.00	
31.50	92.80	
32.50	122.00	
33.50	92.90	
34.50	81.90	
35.50	105.00	
36.50	105.00	
37.50	60.10	
38.50	99.60	
39.50	39.30	
40.50	26.80	
41.50	57.40	
42.50	35.20	
43.50	4.94	
44.50	84.70	
45.50	34.60	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-05

46.50	61.70	
47.50	23.50	
48.50	65.30	
49.50	26.00	
50.50	56.90	
51.50	51.80	
52.50	21.60	
53.50	12.00	
54.50	0.32	
55.50	1.08	
56.50	5.49	
57.50	0.78	
58.50	0.37	
59.50	0.34	
60.50	0.62	
61.50	0.38	
62.50	0.40	
63.50	0.39	
64.50	0.52	
65.50	0.11	
66.50	3.87	
67.50	42.50	
68.50	9.40	
69.50	1.00	
70.50	0.30	
71.50	0.38	
72.50	0.41	
73.50	10.40	
74.50	4.39	
75.50	0.92	
76.50	0.64	
77.50	1.59	
78.50	0.30	
79.50	0.17	
80.50	0.37	
81.50	0.26	
82.50	0.18	
83.50	0.15	
84.50	0.33	
85.50	0.52	
86.50	0.73	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-05

87.50	0.32	
88.50	0.28	
89.50	0.99	
90.50	0.23	
91.50	0.20	
92.50	0.16	
93.50	0.80	
94.50	0.34	
95.50	0.22	
96.50	0.11	
97.50	0.09	
98.50	0.11	
99.50	0.07	
100.50	0.11	
101.50	0.07	
102.50	0.14	
103.50	0.49	
104.50	0.47	
105.50	0.62	
106.50	0.56	
107.50	0.43	
108.50	0.08	
109.50	0.04	
110.50	0.11	
111.50	0.10	
112.50	0.02	
113.50	0.04	
114.50	0.15	
115.50	0.12	
116.50	0.61	
117.50	0.52	
118.50	0.33	119.4m End of Hole

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-05

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
9.40	13.00	72	95	N	
13.00	16.00	70	98	N	
16.00	19.00	63	98	N	
19.00	22.00	68	100	N	
22.00	25.00	67	100	N	
25.00	28.00	68	100	N	
28.00	31.00	78	100	N	
31.00	34.00	81	100	N	
34.00	37.00	85	100	N	
37.00	40.00	86	98	N	
40.00	43.00	44	100	N	
43.00	46.00	42	100	N	
46.00	49.00	76	100	N	
49.00	52.00	91	100	N	
52.00	55.00	68	100	N	
55.00	58.00	69	100	N	
58.00	61.00	64	100	N	
61.00	64.00	87	100	N	
64.00	67.00	58	100	N	
67.00	70.00	34	100	N	
70.00	73.00	44	100	N	
73.00	76.00	39	100	N	
76.00	79.00	63	100	N	
79.00	82.00	39	98	N	
82.00	85.00	28	100	N	
85.00	88.00	65	100	N	
88.00	91.00	59	100	N	
91.00	94.00	72	100	N	
94.00	97.00	61	100	N	
97.00	100.00	59	100	N	
100.00	103.00	47	100	N	
103.00	106.00	64	100	N	
106.00	109.00	60	100	N	
109.00	112.00	48	100	N	
112.00	115.00	48	100	N	
115.00	118.00	88	100	N	
118.00	119.40	40	100	N	

Detailed Log

Hole Number: **ES2004-06** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	UTM WGS 84 Coord	Local Coord	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	UTM Northing: 9,325,372.15	Local Northing: 4454.24	Contractor:	Geo Drilling A/S
Date Started:	8/18/2004	Pulse EM Survey:	N			UTM Easting: 3,731,798.97	Local Easting: 7646.92	Logged by:	Yannick Beaudoin
Date Completed:	8/19/2004	Casing:	Left in Hole, capped			Elevation: 967.98			
		Location:	Surface						

Collar Dip: -75.00
Collar Azimuth: 229.00
Length: 62.40

Comments

Purpose: Follow up mineralization intersected in ES2004-05 and further test UTEM conductor ESP_15_15

Result: Intersected mineralized (5-15% sulphides) ultramafic body from 15.57-46.35m bounded by mafic dykes. Also intersected anorthositic rocks and a dolerite dyke downhole of the ultramafic.

Assays: 0.40% Ni, 0.14% Cu, 0.03% Co / 1.0m (40.00-41.00m) (best).

Lithological interpretation: Anorthositic rocks extensively intruded by mafic to ultramafic dykes and intrusions.

Detailed Lithology

From	To		Lithology
0.00	14.70	C	**Casing**
14.70	15.57	**10f**	**Mafic dykes** Fine grained, chloritized mafic volcanic. Cross cut by late, mm scale quartz veins. <1% sulphides. Lower contact, with peridotite unit, is at 60 degrees from the core axis. **Alteration** 14.70 15.57 CH Chlorite P Pervasive M Moderate **Structure** 15.56 15.57 LC Lower Contact

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
15.57	46.35	**6b Peridotite** Medium to coarse grained, weakly foliated, strongly magnetic, dark grey, moderately serpentinized peridotite with large cm scale sub-hedral to sub-rounded pyroxene oikocrysts. Oikocrysts are light to dark grey and are partially replaced by serpentine and magnetite. Unit is transitional between a 'good' oikocrystic pyroxenite and a 'good' peridotite. Unit is cut by cm to dm scale talc/serpentinite veins. The lower contact is at 85 degrees relative to the core axis. From 23.58m to 45.38m, grain size is reduced and a well developped fabric appears. From this point the unit is defined as an ultramafic schist. (See minor unit for description). Unit is strongly magnetic until 23.58m. Sulphide mineralization averages 10-15% from 15.57m to 23.58m. Mineralization type is mostly disseminated to somewhat blebby with minor stringers and veinlets. Pyrrhotite is the dominant sulphide with trace to minor chalcopyrite and what appears to be flecks of pentlandite within the pyrrhotite. Interpretation: Consistent with Heim's Rock Suite 2b (Peridotite - Pyroxenite).
		Minor Interval
23.58	33.70	**6e Ultramafic Schist** From this point, the oikocrystic peridotite is defined as a schist due to an increase in overall fabric intensity. Grain size is also notably reduced to medium. Within the ultramafic schist portion of the peridotite, a small <4m long mafic volcanic wrath is present. At the contact between the ultramafic schist and the mafic volcanic, brecciation can be seen with angular fragments of the volcanic lying within the ultramafic. Mineraliation within this minor unit averages 5-8% with local pyrrhotite stringers. Trace to minor chalcopyrite can also be seen. Some pentlandite eyes (<1 mm) can be seen within the pyrrhotite. Talc/serpentinite veins (mm to dm scale) cross cut the unit throughout its length.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00165	15.60	17.00	1.40	0.23	0.08	0.01	2.04	0.01	0.01	0.01	0.25
PG00166	17.00	18.00	1.00	0.23	0.09	0.03	1.56	0.01	0.01	0.01	0.25
PG00167	18.00	19.00	1.00	0.24	0.06	0.02	1.72	0.01	0.01	0.01	0.25
PG00168	19.00	20.00	1.00	0.27	0.15	0.02	1.75	0.01	0.01	0.01	0.60
PG00169	20.00	21.00	1.00	0.27	0.09	0.04	1.75	0.01	0.01	0.01	0.25
PG00170	21.00	22.00	1.00	0.26	0.09	0.03	1.84	0.01	0.01	0.02	0.25
PG00171	22.00	23.00	1.00	0.28	0.10	0.02	1.79	0.01	0.01	0.02	0.25
PG00172	23.00	23.60	0.60	0.23	0.10	0.03	1.72	0.01	0.01	0.01	0.25
PG00173	23.60	25.00	1.40	0.23	0.12	0.02	1.44	0.01	0.01	0.02	0.60
PG00174	25.00	26.00	1.00	0.22	0.17	0.01	1.84	0.01	0.01	0.02	0.70
PG00176	26.00	27.00	1.00	0.23	0.12	0.01	1.80	0.01	0.01	0.02	0.60
PG00177	27.00	28.00	1.00	0.26	0.19	0.02	1.95	0.01	0.01	0.04	0.90
PG00178	28.00	29.00	1.00	0.28	0.08	0.01	2.07	0.01	0.01	0.01	0.50
PG00179	29.00	30.00	1.00	0.24	0.08	0.03	1.48	0.01	0.01	0.01	0.25
PG00180	30.00	31.00	1.00	0.22	0.07	0.01	1.91	0.01	0.01	0.01	0.25
PG00181	31.00	32.00	1.00	0.15	0.07	0.01	0.54	0.01	0.01	0.04	0.25
PG00182	32.00	33.00	1.00	0.25	0.18	0.01	1.50	0.01	0.01	0.01	0.70
PG00183	33.00	33.70	0.70	0.20	0.08	0.03	0.84	0.01	0.01	0.01	0.25
PG00184	33.70	35.00	1.30	0.03	0.03	0.01	0.24	0.01	0.01	0.01	0.25
PG00185	35.00	36.00	1.00	0.03	0.03	0.01	0.34	0.01	0.01	0.02	0.25
PG00186	36.00	36.50	0.50	0.03	0.03	0.01	0.06	0.01	0.01	0.01	0.25
PG00187	36.50	38.00	1.50	0.23	0.12	0.02	1.69	0.01	0.01	0.02	0.25
PG00188	38.00	39.00	1.00	0.25	0.11	0.03	1.88	0.01	0.01	0.01	0.60
PG00189	39.00	40.00	1.00	0.36	0.19	0.03	2.89	0.01	0.01	0.02	1.00
PG00190	40.00	41.00	1.00	0.40	0.14	0.03	3.44	0.02	0.01	0.02	0.80
PG00191	41.00	42.00	1.00	0.25	0.24	0.01	2.14	0.02	0.01	0.05	1.00
PG00192	42.00	43.00	1.00	0.33	0.12	0.03	2.78	0.01	0.01	0.06	0.80
PG00193	43.00	44.00	1.00	0.24	0.14	0.02	1.89	0.01	0.01	0.03	0.70
PG00194	44.00	45.00	1.00	0.18	0.16	0.02	1.21	0.02	0.01	0.02	1.00
PG00195	45.00	46.30	1.30	0.14	0.10	0.01	0.46	0.01	0.01	0.01	0.80
PG00196	46.30	47.00	0.70	0.08	0.20	0.01	0.27	0.01	0.01	0.05	1.70

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
46.35	49.74	**10f Mafic dykes** Fine grained, chloritized mafic volcanic. Cross cut by late, mm scale quartz veins. <1% sulphides. Lower contact, with anorthosite is at 45 degrees with respect to core axis. **Alteration** 46.35 49.74 CH Chlorite P Pervasive M Moderate **Structure** 49.73 49.74 LC Lower Contact												
49.74	61.40	**4 Anorthosite / Anorthositic Gabbro** Anorthosite to anorthositic gabbro (mainly anorthositic gabbro). Medium-coarse to medium grained, mottled texture. Locally sheared/tectonized and sausseritized. Unit is cross cut by epidote-chlorite veins. Minor chlorite and epidote can be seen locally in the matrix. No mineralization is present. Unit is not magnetic. Interpretation: Unit classification based on observation and correlation with similar units from other drill holes (e.g. ES2004-08, 09).												
61.40	62.40	**8a Dolerite** Fine to medium grained, moderately magnetic mafic intrusive with diabasic (doloritic) texture. Upper contact with anorthosite is at 28 degrees with respect to core axis. Unmineralized.												

Espedalen - Analysis

Hole Number: ES2004-06

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00165	15.60	17.00	1.40	0.23	0.08	0.01	2.04	0.01	0.01	0.01	0.25																
PG00166	17.00	18.00	1.00	0.23	0.09	0.03	1.56	0.01	0.01	0.01	0.25																
PG00167	18.00	19.00	1.00	0.24	0.06	0.02	1.72	0.01	0.01	0.01	0.25																
PG00168	19.00	20.00	1.00	0.27	0.15	0.02	1.75	0.01	0.01	0.01	0.60																
PG00169	20.00	21.00	1.00	0.27	0.09	0.04	1.75	0.01	0.01	0.01	0.25																
PG00170	21.00	22.00	1.00	0.26	0.09	0.03	1.84	0.02	0.01	0.01	0.25																
PG00171	22.00	23.00	1.00	0.28	0.10	0.02	1.79	0.02	0.01	0.01	0.25																
PG00172	23.00	23.60	0.60	0.23	0.10	0.03	1.72	0.01	0.01	0.01	0.25																
PG00173	23.60	25.00	1.40	0.23	0.12	0.02	1.44	0.02	0.01	0.01	0.60																
PG00174	25.00	26.00	1.00	0.22	0.17	0.01	1.84	0.02	0.01	0.01	0.70																
PG00176	26.00	27.00	1.00	0.23	0.12	0.01	1.80	0.02	0.01	0.01	0.60																
PG00177	27.00	28.00	1.00	0.26	0.19	0.02	1.95	0.04	0.01	0.01	0.90																
PG00178	28.00	29.00	1.00	0.28	0.08	0.01	2.07	0.01	0.01	0.01	0.50																
PG00179	29.00	30.00	1.00	0.24	0.08	0.03	1.48	0.01	0.01	0.01	0.25																
PG00180	30.00	31.00	1.00	0.22	0.07	0.01	1.91	0.01	0.01	0.01	0.25																
PG00181	31.00	32.00	1.00	0.15	0.07	0.01	0.54	0.04	0.01	0.01	0.25																
PG00182	32.00	33.00	1.00	0.25	0.18	0.01	1.50	0.01	0.01	0.01	0.70																
PG00183	33.00	33.70	0.70	0.20	0.08	0.03	0.84	0.01	0.01	0.01	0.25																
PG00184	33.70	35.00	1.30	0.03	0.03	0.01	0.24	0.01	0.01	0.01	0.25																
PG00185	35.00	36.00	1.00	0.03	0.03	0.01	0.34	0.02	0.01	0.01	0.25																
PG00186	36.00	36.50	0.50	0.03	0.03	0.01	0.06	0.01	0.01	0.01	0.25																
PG00187	36.50	38.00	1.50	0.23	0.12	0.02	1.69	0.02	0.01	0.01	0.25																
PG00188	38.00	39.00	1.00	0.25	0.11	0.03	1.88	0.01	0.01	0.01	0.60																
PG00189	39.00	40.00	1.00	0.36	0.19	0.03	2.89	0.02	0.01	0.01	1.00																
PG00190	40.00	41.00	1.00	0.40	0.14	0.03	3.44	0.02	0.02	0.01	0.80																
PG00191	41.00	42.00	1.00	0.25	0.24	0.01	2.14	0.05	0.02	0.01	1.00																
PG00192	42.00	43.00	1.00	0.33	0.12	0.03	2.78	0.06	0.01	0.01	0.80																
PG00193	43.00	44.00	1.00	0.24	0.14	0.02	1.89	0.03	0.01	0.01	0.70																
PG00194	44.00	45.00	1.00	0.18	0.16	0.02	1.21	0.02	0.02	0.01	1.00																

Espedalen - Analysis

Hole Number: ES2004-06

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00195	45.00	46.30	1.30	0.14	0.10	0.01	0.46	0.01	0.01	0.01	0.80																
PG00196	46.30	47.00	0.70	0.08	0.20	0.01	0.27	0.05	0.01	0.01	1.70																

Espedalen - Conductivity

Hole Number: ES2004-06

Depth	Conductivity (Siemens)	COMMENTS
16.40	42.20	
17.60	40.00	
18.45	51.10	
18.80	44.40	
19.50	57.70	
19.80	53.10	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-06

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
15.50	0.45	
16.50	77.70	
17.50	91.50	
18.50	89.10	
19.50	100.00	
20.50	58.60	
21.50	70.70	
22.50	72.70	
23.50	48.40	
24.50	1.18	
25.50	8.37	
26.50	6.08	
27.50	4.23	
28.50	0.97	
29.50	0.88	
30.50	2.16	
31.50	0.42	
32.50	1.51	
33.50	0.46	
34.50	0.47	
35.50	0.40	
36.50	0.35	
37.50	10.30	
38.50	9.04	
39.50	22.00	
40.50	17.70	
41.50	8.96	
42.50	6.34	
43.50	4.19	
44.50	1.00	
45.50	0.88	
46.50	0.49	
47.50	0.43	
48.50	0.79	
49.50	1.23	
50.50	0.03	
51.50	0.10	
52.50	0.12	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-06
53.50	0.10	
54.50	0.04	
55.50	0.09	
56.50	0.11	
57.50	0.13	
58.50	0.21	
59.50	0.14	
60.50	0.14	
61.50	2.65	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-06

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
14.70	18.00	59	100	N	
18.00	21.00	67	100	N	
21.00	24.00	46	100	N	
24.00	27.00	54	100	N	
27.00	30.00	65	100	N	
30.00	33.00	78	100	N	
33.00	36.00	81	100	N	
36.00	39.00	56	100	N	
39.00	42.00	38	100	N	
42.00	45.00	61	100	N	
45.00	48.00	32	100	N	
48.00	51.00	61	100	N	
51.00	54.00	78	100	N	
54.00	57.00	63	100	N	
57.00	60.00	73	100	N	
60.00	62.40	70	100	N	62.4m End of Hole

Detailed Log

Hole Number: **ES2004-07** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	UTM WGS 84 Coord	Local Coord	Core Storage: Strand Fjellstue	Collar Dip: -75.00
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	UTM Northing: 9,325,372.15	Local Northing: 4460.12	Contractor: Geo Drilling A/S	Collar Azimuth: 231.00
Date Started:	8/20/2004	Pulse EM Survey:	Y			UTM Easting: 3,731,798.97	Local Easting: 7603.96		Length: 72.40
Date Completed:	8/22/2004	Casing:	Left in Hole, capped			Elevation: 967.98		Logged by: Yannick Beaudoin	
		Location:	Surface						

Comments

Purpose: Follow up on mineralization intersected in ES2004-05 and further test UTEM conductor ESP_15_15.

Result: Intersected mineralized pyroxenite between 18.30-39.40m containing 5-15% sulphides as disseminations, blebs and stringers. Ultramafic is bounded uphole and downhole by anorthosite/anorthositic gabbro.

Assays: 0.19% Ni, 0.16% Cu, 0.01% Co / 1.0m (20.00-21.00m) (best)

Borehole UTEM: off-hole response centered @ 40m, situated approximately 20m away from hole.

Lithological interpretation: Anorthositic rocks intruded by a mineralized pyroxenite.

Detailed Lithology / **Assay Data**

From	To		Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
0.00	16.20	C	**Casing**												
16.20	18.30	4	**Anorthosite / Anorthositic Gabbro** Anorthosite to anorthositic gabbro (mainly anorthositic gabbro). Medium-coarse to medium grained, mottled texture. Locally sheared/tectonized and sausseritized. Unit is cross cut by epidote-chlorite veins. Minor chlorite and epidote can be seen locally in the matrix. No mineralization is present. Unit is not magnetic. Interpretation: Unit classification based on observation and correlation with similar units from other drill holes (e.g. ES2004-08, 09).	PG00197	17.80	18.30	0.50	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
18.30	39.40	**6d Pyroxenite** Medium to locally fine grained pyroxenite. Moderately magnetic to locally highly magnetic patches. Pervasive talc/serpentinite alteration gives bands of the unit a melano-noritic appearance. No visible oikocrysts (in reference to decription for ES2004-05 and ES2004-06). Mineralization is variable with 5-10% sulphides from 18.2m to 34.30m and 10-15% from 34.30m to 39.00m. Mineralization is generally disseminated with blebs and stringers. Pyrrhotite is the main sulphide with bright flecks of pentlandite visible. Minor chalcopyrite is also visible in association with the pyrrhotite. Cm scale talc/serpentinite veins cross cut the entire unit. Fragments of anorthosite are observed in the ultramafic in proximity to the upper contact. Upper contact is at 65 degrees to the core axis. Lower contact is near 90 degrees to core axis angle. Interpretation: Consistent with Heim's Rock Suite 2b (Peridotite - Pyroxenite). **Mineralization** 18.30 34.30 8.0% Po Pyrrhotite D Disseminated local stringers and blebs; minor cpy and

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00198	18.30	20.00	1.70	0.17	0.12	0.01	1.42	0.01	0.01	0.01	0.25
PG00199	20.00	21.00	1.00	0.19	0.16	0.01	1.85	0.02	0.01	0.02	0.25
PG00201	21.00	22.00	1.00	0.11	0.07	0.01	1.09	0.01	0.01	0.01	0.25
PG00202	22.00	23.00	1.00	0.11	0.09	0.01	1.00	0.01	0.01	0.01	0.25
PG00203	23.00	24.00	1.00	0.09	0.08	0.01	0.68	0.02	0.01	0.01	0.25
PG00204	24.00	25.00	1.00	0.08	0.03	0.01	0.66	0.01	0.01	0.01	0.25
PG00206	25.00	26.00	1.00	0.08	0.07	0.01	0.77	0.01	0.01	0.02	0.60
PG00207	26.00	27.00	1.00	0.06	0.03	0.01	0.44	0.01	0.01	0.01	0.25
PG00208	27.00	28.00	1.00	0.06	0.03	0.01	0.47	0.02	0.01	0.01	0.25
PG00209	28.00	29.00	1.00	0.07	0.03	0.01	0.62	0.01	0.01	0.01	0.25
PG00210	29.00	30.00	1.00	0.07	0.05	0.01	0.59	0.01	0.01	0.01	0.25
PG00211	30.00	31.00	1.00	0.14	0.05	0.01	1.22	0.01	0.01	0.01	0.25
PG00212	31.00	32.00	1.00	0.16	0.07	0.03	1.47	0.01	0.01	0.01	0.25
PG00213	32.00	33.00	1.00	0.11	0.06	0.02	1.10	0.01	0.01	0.01	0.25
PG00214	33.00	34.00	1.00	0.15	0.03	0.01	1.38	0.01	0.01	0.01	0.25
PG00215	34.00	35.00	1.00	0.19	0.06	0.01	1.69	0.01	0.01	0.01	0.25
PG00216	35.00	36.00	1.00	0.16	0.09	0.01	1.21	0.01	0.01	0.01	0.50
PG00217	36.00	37.00	1.00	0.17	0.11	0.01	1.45	0.01	0.01	0.01	0.25
PG00218	37.00	38.00	1.00	0.16	0.11	0.02	1.46	0.01	0.01	0.01	0.25
PG00219	38.00	39.40	1.40	0.18	0.07	0.01	1.54	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
39.40	72.40	**4 Anorthosite / Anorthositic Gabbro** Anorthosite to anorthositic gabbro (mainly anorthositic gabbro). Medium-coarse to medium grained, mottled texture. Locally sheared/tectonized and sausseritized. Intruded by mineralized ultramafic (pyroxenite) dykes as well as mafic dykes (see Minor Unit for descriptions). 56.6-56.85m: narrow peridotitic UM with 2% sulphides (not sampled). Upper contact at near 90 degrees to core axis angle. Interpretation: Unit classification based on observation and correlation with similar units from other drill holes (e.g. ES2004-08, 09).
		Minor Interval
43.10	43.90	**6d Pyroxenite** Medium grained, non oikocrystic pyroxenite. Relatively unaltered (with respect to talc/serpentinite alteration in major unit 6d from 18.30m to 39.40m). Moderately developed fabric at ~65 degrees to core axis angle. Mineralization consists of 10-15% disseminated to locally stringer sulphides. Pyrrhotite is the main sulphide with visible bright flecks of pentlandite. Minor chalcopyrite is seen in association with the pyrrhotite. Upper contact is 85 degrees to core axis angle. Lower contact is at 75 degrees to core axis angle...marked by a cm scale talc/serpentinite vein. Interpretation: Consistent with Heim's Rock Suite 2b (Peridotite - Pyroxenite).
		Minor Interval
63.20	64.35	**10f Mafic dykes** Fine grained mafic volcanic/dyke. Chloritized. Non magnetic and non mineralized. Upper contact at ~10 degrees from core axis angle. Intruded anorthosites are altered for about 0.5m ahead of contact. Lower contact at ~45 degrees tro core axis angle. Intruded anorthosites are altered for about 0.20m below contact

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00220	39.40	40.00	0.60	0.03	0.03	0.01	0.04	0.02	0.01	0.01	0.25
PG00221	42.60	43.10	0.50	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25
PG00222	43.10	43.90	0.80	0.18	0.08	0.01	1.45	0.01	0.01	0.01	0.25
PG00223	43.90	44.40	0.50	0.03	0.03	0.01	0.06	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Minor Interval												
	64.70	65.70	**10f Mafic dykes** Fine grained mafic volcanic/dyke. Chloritized. Non magnetic and non mineralized. Upper contact at ~45 degrees from core axis angle. Intruded anorthosites are altered for about 0.2m ahead of contact. Lower contact at ~70 degrees tro core axis angle. Intruded anorthosites are altered for about 1.6m below contact											
		Minor Interval												
	67.30	68.50	**10f Mafic dykes** Fine grained mafic volcanic/dyke. Chloritized. Non magnetic and non mineralized. Upper contact at ~45 degrees from core axis angle. Intruded anorthosites are altered for about 1.6m ahead of contact. Lower contact near parallel to core axis angle. Intruded anorthosites are altered for about 1.5m below contact											

Espedalen - Analysis

Hole Number: ES2004-07

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00197	17.80	18.30	0.50	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25																
PG00198	18.30	20.00	1.70	0.17	0.12	0.01	1.42	0.01	0.01	0.01	0.25																
PG00199	20.00	21.00	1.00	0.19	0.16	0.01	1.85	0.02	0.02	0.01	0.25																
PG00201	21.00	22.00	1.00	0.11	0.07	0.01	1.09	0.01	0.01	0.01	0.25																
PG00202	22.00	23.00	1.00	0.11	0.09	0.01	1.00	0.01	0.01	0.01	0.25																
PG00203	23.00	24.00	1.00	0.09	0.08	0.01	0.68	0.01	0.02	0.01	0.25																
PG00204	24.00	25.00	1.00	0.08	0.03	0.01	0.66	0.01	0.01	0.01	0.25																
PG00206	25.00	26.00	1.00	0.08	0.07	0.01	0.77	0.02	0.01	0.01	0.60																
PG00207	26.00	27.00	1.00	0.06	0.03	0.01	0.44	0.01	0.01	0.01	0.25																
PG00208	27.00	28.00	1.00	0.06	0.03	0.01	0.47	0.01	0.02	0.01	0.25																
PG00209	28.00	29.00	1.00	0.07	0.03	0.01	0.62	0.01	0.01	0.01	0.25																
PG00210	29.00	30.00	1.00	0.07	0.05	0.01	0.59	0.01	0.01	0.01	0.25																
PG00211	30.00	31.00	1.00	0.14	0.05	0.01	1.22	0.01	0.01	0.01	0.25																
PG00212	31.00	32.00	1.00	0.16	0.07	0.03	1.47	0.01	0.01	0.01	0.25																
PG00213	32.00	33.00	1.00	0.11	0.06	0.02	1.10	0.01	0.01	0.01	0.25																
PG00214	33.00	34.00	1.00	0.15	0.03	0.01	1.38	0.01	0.01	0.01	0.25																
PG00215	34.00	35.00	1.00	0.19	0.06	0.01	1.69	0.01	0.01	0.01	0.25																
PG00216	35.00	36.00	1.00	0.16	0.09	0.01	1.21	0.01	0.01	0.01	0.50																
PG00217	36.00	37.00	1.00	0.17	0.11	0.01	1.45	0.01	0.01	0.01	0.25																
PG00218	37.00	38.00	1.00	0.16	0.11	0.02	1.46	0.01	0.01	0.01	0.25																
PG00219	38.00	39.40	1.40	0.18	0.07	0.01	1.54	0.01	0.01	0.01	0.25																
PG00220	39.40	40.00	0.60	0.03	0.03	0.01	0.04	0.01	0.02	0.01	0.25																
PG00221	42.60	43.10	0.50	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG00222	43.10	43.90	0.80	0.18	0.08	0.01	1.45	0.01	0.01	0.01	0.25																
PG00223	43.90	44.40	0.50	0.03	0.03	0.01	0.06	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2004-07

Depth	Conductivity (Siemens)	COMMENTS
43.20	24.40	small mineralized ultramafic dyke 43.10m-43.90m
43.45	24.00	
43.70	31.10	
44.15	22.20	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-07

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
16.50	0.42	
17.50	0.05	
18.50	3.30	
19.50	4.92	
20.50	2.72	
21.50	6.26	
22.50	20.20	
23.50	2.00	
24.50	7.99	
25.50	16.40	
26.50	3.10	
27.50	7.88	
28.50	4.90	
29.50	3.13	
30.50	0.39	
31.50	3.37	
32.50	6.60	
33.50	3.86	
34.50	17.20	
35.50	16.00	
36.50	15.30	
37.50	25.60	
38.50	30.10	
39.50	0.25	
40.50	0.15	
41.50	0.08	
42.50	0.11	
43.50	1.88	
44.50	0.25	
45.50	0.28	
46.50	0.19	
47.50	0.06	
48.50	0.10	
49.50	0.21	
50.50	0.09	
51.50	0.17	
52.50	0.36	
53.50	0.18	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-07
54.50	0.07	
55.50	0.20	
56.50	0.13	
57.50	0.11	
58.50	0.11	
59.50	0.08	
60.50	0.16	
61.50	0.10	
62.50	0.16	
63.50	0.26	
64.50	0.09	
65.50	0.74	
66.50	0.17	
67.50	0.29	
68.50	0.11	
69.50	0.08	
70.50	0.44	
71.50	0.13	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-07

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
16.20	19.00	20	98	N	
19.00	22.00	30	100	N	
22.00	25.00	48	100	N	
25.00	28.00	50	100	N	
28.00	31.00	58	100	N	
31.00	34.00	68	100	N	
34.00	37.00	47	100	N	
37.00	40.00	66	100	N	
40.00	43.00	61	100	N	
43.00	46.00	50	100	N	
46.00	49.00	44	100	N	
49.00	52.00	70	100	N	
52.00	55.00	75	100	N	
55.00	58.00	43	100	N	
58.00	61.00	77	100	N	
61.00	64.00	65	98	N	
64.00	67.00	56	100	N	
67.00	70.00	45	100	N	
70.00	72.40	46	100	N	72.4m End of Hole

Detailed Log

Hole Number: **ES2004-08** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Geo Drilling A/S
Date Started:	8/24/2004	Pulse EM Survey:	Y			Logged by:	Yannick Beaudoin/P. Tirschmann
Date Completed:	8/26/2004	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,300.03	Local Northing:	3005.43
UTM Easting:	535,129.16	Local Easting:	1398.59
Elevation: 978.26			

Collar Dip:	-43.95
Collar Azimuth:	234.75
Length:	85.30

Comments

Purpose: Test UTEM conductor ESP_17_17. Conductivity = 500 Siemens

Result: Intersected sausseritized and tecontonized anorthosite intruded by a narrow, schistose, mineralized ultramafic body from 56.25-59.00m. mineralization consists of 10-45% sulphide (po-pn-cp-py) stringers, veinlets and disseminations.

Assays: 2.07% Ni, 1.20% Cu, 0.07% Co / 2.70m (56.30-59.00m)

Borehole UTEM: Symmetric in-hole response centered on 60m, correlates with intersected mineralization.

Lithological interpretation: Mineralized ultramafic dyke (?) intruding anorthositic rocks; all units subsequently tectonized.

Detailed Lithology

From	To		Lithology
0.00	3.55	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
3.55	56.25	**4s Sausseritized/Tectonized Anorthosite** Medium grained, well foliated, banded sausseritized and tectonized anorthosite. Unit is cross cut by mm to cm scale foliation parallel quartz veins. Dm to m scale mafic dykes intrude the unit (see Minor Units). Mineralization: Minor disseminated pyrite can be seen throughout. From 53.8m to 56.25m, patchy stringers of po, py mineralization (<3%) can be seen (related to the mineralized mafic unit below). Trace amounts of very bright green mineral (fuchsite or chloritoid?) observed (eg. 48.8m). Foliation is between 65-85 degrees to core axis. **Minor Interval** 36.00 39.50 **10f Mafic dykes** Unmineralized, fine-medium grained mafic dyke/flow. Upper contact near perpendicular to core axis. Lower contact ~75 degrees to core axis. Fragments of anorthosite observed especially in the vicinity of the contacts. **Minor Interval** 51.50 53.00 **6 Undivided Ultramafic Intrusive** Ultramafic schist containing po stringers up to 1.5cm in width. Upper and lower contacts near perpendicular to core axis. **Mineralization** 52.85 54.00 4.0% **Po** Pyrrhotite STR Stringers 3-5% po stringers **Structure** 14.40 14.41 Sm General Foliation **Structure** 41.50 41.51 Sm General Foliation **Structure** 54.50 54.51 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03109	52.00	52.85	0.85	0.03	0.03	0.01	0.50	0.01	0.01	0.01	0.25
PG03110	52.85	54.00	1.15	0.51	0.30	0.03	2.64	0.01	0.01	0.01	0.25
PG03111	54.00	55.00	1.00	0.03	0.03	0.01	0.02	0.02	0.01	0.01	0.25
PG03112	55.00	55.80	0.80	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25
PG00224	55.80	56.30	0.50	0.22	0.08	0.01	0.91	0.02	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
56.25	59.00	**6e Ultramafic Schist**

Fine to medium grained, dark green, schistose and highly altered (chlorite or talc/serpentinite), ultramafic. Secondary biotite (alteration of amphiboles?) is pervasive. Unit is very soft and can easily be scratched with a finger nail. Fragments of anorthosite are observed especially in the vicinity of the upper and lower contacts. Angular quartz fragment observed near upper contact.

Mineralization: 20-25% sulphides (po-cpy-py-pn) over the length. Bright flecks within pyrrhotite may represent presence of pentlandite. Mineralization occurs as stringers and veinlets, and also as disseminated sulphide. From 58m to 59m, the presence of unmineralized anorthosite fragments reduces the overall sulphide content.

Unit is moderately to strongly magnetic throughout; unmineralized portions are non magnetic.

Foliation within unit is perpendicular to core axis.

Lower contact is ~ 70-75 degrees to core axis. Upper contact angle cannot be determined due to missing core piece.

Interpretation: Tectonized, mineralized ultramafic dyke (?).

Mineralization	56.25	57.00	23.0%	Po	Pyrrhotite
				STR	Stringers
				with 25% cp and 5% py and 70% po	
Mineralization	57.00	58.00	38.0%	Po	Pyrrhotite
				STR	Stringers
				with 25% cp and 5% py and 70% po	
Mineralization	58.00	59.00	10.0%	Po	Pyrrhotite
				STR	Stringers
				less due to anorthosite fragments	
Alteration	56.25	59.00	BI	Biotite	
			PT	Patchy	
			M	Moderate	
Alteration	56.25	59.00	CH	Chlorite	
			P	Pervasive	
			S	Strong	
Structure	56.25	59.00	Sm	General Foliation	
Structure	58.99	59.00	LC	Lower Contact	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00226	56.30	57.00	0.70	0.79	0.72	0.03	3.51	0.02	0.03	0.01	0.70
PG00227	57.00	58.00	1.00	3.32	2.01	0.12	15.00	0.05	0.06	0.01	1.60
PG00228	58.00	58.50	0.50	1.80	0.76	0.05	10.20	0.04	0.05	0.04	0.60
PG00229	58.50	59.00	0.50	1.65	0.69	0.07	9.31	0.04	0.04	0.01	0.60

Detailed Lithology

From	To	Lithology
59.00	85.30	**4s Sausseritized/Tectonized Anorthosite** Medium grained, well foliated, banded, altered and tectonized anorthosite. Trace amounts of bright green mineral present (fuchsite or chloritoid?). Trace cp-po-py in fractures at 60.35m. Hematization observed from 60.45m to 63.4. **Minor Interval** 70.10 70.50 **4s Sausseritized/Tectonized Anorthosite** Fine grained, chloritized, banded (layers?) anorthosite. Minor pyrite mineralization. Upper contact is at 45 degrees to core axis. Lower contact is at 80 degrees to core axis. **Minor Interval** 79.00 84.00 **10f Mafic dykes** Unmineralized, fine-medium grained mafic dyke/flow. Upper contact near perpendicular to core axis. **Alteration** 60.45 63.40 HM Hematite P Pervasive M Moderate also another type of unrecognized alteration. Yellov green alteration (epidote?). **Structure** 65.00 65.01 Sm General Foliation **Structure** 84.10 84.11 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00230	59.00	59.50	0.50	0.41	0.22	0.03	1.26	0.01	0.03	0.01	0.25
PG03113	59.50	60.40	0.90	0.13	0.06	0.01	0.37	0.02	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2004-08

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03109	52.00	52.85	0.85	0.03	0.03	0.01	0.50	0.01	0.01	0.01	0.25																
PG03110	52.85	54.00	1.15	0.51	0.30	0.03	2.64	0.01	0.01	0.01	0.25																
PG03111	54.00	55.00	1.00	0.03	0.03	0.01	0.02	0.01	0.02	0.01	0.25																
PG03112	55.00	55.80	0.80	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25																
PG00224	55.80	56.30	0.50	0.22	0.08	0.01	0.91	0.01	0.02	0.01	0.25																
PG00226	56.30	57.00	0.70	0.79	0.72	0.03	3.51	0.01	0.02	0.03	0.70																
PG00227	57.00	58.00	1.00	3.32	2.01	0.12	15.00	0.01	0.05	0.06	1.60																
PG00228	58.00	58.50	0.50	1.80	0.76	0.05	10.20	0.04	0.04	0.05	0.60																
PG00229	58.50	59.00	0.50	1.65	0.69	0.07	9.31	0.01	0.04	0.04	0.60																
PG00230	59.00	59.50	0.50	0.41	0.22	0.03	1.26	0.01	0.01	0.03	0.25																
PG03113	59.50	60.40	0.90	0.13	0.06	0.01	0.37	0.01	0.02	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2004-08

Depth	Conductivity (Siemens)	COMMENTS
56.90	64.40	
57.10	68.80	
57.40	253.80	
57.60	415.40	
57.90	999.00	1078.2
58.30	950.10	
58.50	146.10	
58.90	999.00	1878.3

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-08

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
3.50	0.15	
4.50	0.12	
5.50	0.11	
6.50	0.10	
7.50	0.20	
8.50	0.19	
9.50	0.13	
10.50	0.15	
11.50	0.23	
12.50	0.15	
13.50	0.19	
14.50	0.18	
15.50	0.15	
16.50	0.19	
17.50	0.19	
18.50	0.13	
19.50	0.16	
20.50	0.11	
21.50	0.14	
22.50	0.21	
23.50	0.53	
24.50	0.20	
25.50	0.18	
26.50	0.11	
27.50	0.11	
28.50	0.17	
29.50	0.08	
30.50	0.05	
31.50	0.03	
32.50	0.03	
33.50	0.02	
34.50	0.03	
35.50	0.06	
36.50	0.30	
37.50	0.32	
38.50	0.54	
39.50	0.09	
40.50	0.03	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-08

41.50	0.12	
42.50	0.08	
43.50	0.13	
44.50	0.12	
45.50	0.08	
46.50	0.12	
47.50	0.05	
48.50	0.08	
49.50	0.11	
50.50	0.05	
51.50	0.50	
52.50	0.91	
53.50	0.26	
54.50	0.10	
55.50	0.21	
56.50	0.43	
57.50	10.80	
58.50	8.71	
59.50	0.16	
60.50	0.15	
61.50	0.07	
62.50	0.08	
63.50	0.25	
64.50	0.14	
65.50	0.24	
66.50	0.14	
67.50	0.35	
68.50	0.17	
69.50	0.07	
70.50	0.36	
71.50	0.18	
72.50	0.14	
73.50	0.07	
74.50	0.07	
75.50	0.16	
76.50	0.27	
77.50	0.13	
78.50	0.14	
79.50	0.45	
80.50	0.62	
81.50	0.61	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-08

82.50	0.33	
83.50	0.51	
84.50	0.20	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-08

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
3.55	6.00	71	100	N	
6.00	9.00	70	100	N	
9.00	12.00	61	100	N	
12.00	15.00	53	100	N	
15.00	18.00	48	100	N	
18.00	21.00	51	98	N	
21.00	24.00	52	100	N	
24.00	27.00	40	100	N	
27.00	30.00	35	100	N	
30.00	33.00	62	100	N	
33.00	36.00	29	98	N	
36.00	39.00	40	100	N	
39.00	42.00	37	100	N	
42.00	45.00	34	100	N	
45.00	48.00	20	100	N	
48.00	51.00	29	100	N	
51.00	54.00	36	100	N	
54.00	57.00	16	100	N	
57.00	60.00	62	100	N	
60.00	63.00	55	100	N	
63.00	66.00	60	100	N	
66.00	69.00	70	100	N	
69.00	72.00	52	100	N	
72.00	75.00	62	100	N	
75.00	78.00	33	100	N	
78.00	81.00	85	100	N	
81.00	84.00	29	97	N	
84.00	85.30	69	100	N	85.3m End of Hole

Detailed Log

Hole Number: **ES2004-09** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Geo Drilling A/S
Date Started:	8/27/2004	Pulse EM Survey:	Y			Logged by:	Yannick Beaudoin
Date Completed:	8/31/2004	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,193.37	Local Northing:	3074.43
UTM Easting:	535,308.73	Local Easting:	1595.72
Elevation: 969.19			

Collar Dip:	-78.68
Collar Azimuth:	208.95
Length:	139.20

Comments

Purpose: To follow-up on mineralization intersected in ES2004-08 and further test UTEM conductor ESP_17_17. Conductivity = 700, 1000 Siemens (2 plates)

Result: Intersected two units of mineralized ultramafic schist and two units of massive sulphide (MS) between 80.4m and 95.0m (po-pn-cp-py). Pentlandite "eyes" visible in MS intervals. Mineralized units are bounded by anorthosite and mafic dykes.

Assays: 1.73% Ni, 0.77% Cu, 0.06% Co / 14.60m (80.40-95.00m)
incl. 3.39% Ni, 2.03% Cu, 0.12% Co / 1.00m
3.03% Ni, 1.15% Cu, 0.14% Co / 1.80m
5.55% Ni, 5.42% Cu, 0.16% Co / 0.50m
6.91% Ni, 2.05% Cu, 0.21% Co / 1.90m

Borehole UTEM: Multi-peaked in-hole responses @ 68m, 85m & 95m. Latter two can be correlated with intersected mineralization listed above. Response at 68m can be correlated with cm scale sulphide stringers intersected within the following intervals: 63.50-63.55m, 64.80-64.80m & 73.50-74.85m.

Lithological interpretation: Anorthositic terrain intruded by mafic dykes and narrow mineralized ultramafic intrusions. Subsequent tectonization of all lithologies and partial remobilization of massive sulphides.

NOTE: Collar re-surveyed by Rob McKeown with base station DGPS in winter of 2005. Results as follows:
UTM North - 6,801,301.504 UTM East - 535,129.069 Grid North: 3006.306 Grid East: 11397.396

Detailed Lithology

From	To	Lithology
0.00	8.80	**C Casing**
8.80	9.80	**10f Mafic dykes** Unmineralized, fine-medium grained mafic dyke/flow. Lower contact near perpendicular to core axis.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
9.80	80.43	**4s Sausseritized/Tectonized Anorthosite** Inhomogeneous, foliated, mottled to banded, white and green, tectonized and altered anorthosite. Alteration consists of patchy to pervasive sausseritization and sericitization (?). Consists of 60-75% variably sausseritized plagioclase, 10-30% foliated, fine grained, pale green amorphous alteration mineral (sericite?) and 5-10% dark green chloritized mafic minerals. Locally contains cm to dm scale intervals of fine grained . green ultramafic schist (eg. 69.6-70m, 73.5-73.85m, 74.85-74.95m). Unit is cross cut by mm to cm scale foliation parallel quartz veins. Dm to m scale mafic dykes/flows intrude the unit (see Minor Units). Banded hematization occurs between 50.00m and 56.40m. **Minor Interval** 13.48 17.80 **10f Mafic dykes** Unmineralized, fine-medium grained mafic dyke/flow. Upper contact near perpendicular to core axis. Lower contact at 85 degrees to core axis. **Minor Interval** 19.70 23.58 **10f Mafic dykes** Unmineralized, fine-medium grained mafic dyke/flow. Upper contact at 75 degrees to core axis. Lower contact near perpendicular to core axis. **Minor Interval** 26.30 31.18 **10f Mafic dykes** Unmineralized, fine-medium grained mafic dyke/flow. Upper contact near perpendicular to core axis. Lower contact at 75 degrees to core axis. **Minor Interval** 56.40 58.00 **10f Mafic dykes** Unmineralized, fine-medium grained mafic dyke/flow. Upper contact near perpendicular to core axis. Lower contact at 45 degrees to core axis. **Minor Interval** 60.60 68.28 **10f Mafic dykes** Unmineralized, fine-medium grained mafic dyke/flow. Upper contact at 50 degrees to core axis. Lower contact near perpendicular to core axis. **Mineralization** 63.50 63.55 80.0% Py Pyrite

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03106	72.50	73.50	1.00	0.03	0.03	0.01	0.07	0.02	0.01	0.01	0.25
PG03107	73.50	74.85	1.35	0.46	0.12	0.01	2.11	0.01	0.01	0.01	0.25
PG03108	74.85	75.60	0.75	0.03	0.03	0.01	0.01	0.03	0.01	0.01	0.25
PG00231	79.40	80.40	1.00	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25
PG00232	80.40	81.40	1.00	3.39	2.03	0.12	19.50	0.04	0.08	0.02	1.70

Detailed Lithology						Assay Data											
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
					py, po stringer; isolated												
		Mineralization	64.80	64.84	55.0%	Po	Pyrrhotite										
						STR	Stringers										
					po, minor ccp; isolated												
		Mineralization	73.50	74.85	5.0%	Po	Pyrrhotite										
						STR	Stringers										
					5% po (1pn, tr cp) concentrated in t three 20mm wide massive stringers (73.5m: 33° to CA; 74.8m: 60° to CA).												
		Alteration	50.00	56.40	HM	Hematite											
					BN	Banded											
					M	Moderate											
		Structure	45.50	45.51	Sm	General Foliation											
		Structure	55.50	55.51	Sm	General Foliation											
		Structure	73.00	73.01	Sm	General Foliation											
		Structure	73.50	73.51	Sm	General Foliation											
		Structure	74.50	74.51	Sm	General Foliation											

80.43 81.40 **6e Ultramafic Schist**

Fine grained, highly altered (chloritized) ultramafic schist.

Mineralization consists of 30-35% sulphides (po-pn-cpy) over length. Net textured on dm scale. Semi massive stringers.

Cm scale angular fragment of anorthositic gabbro.

Upper contact appears near perpendicular to core axis although some missing pieces make observation inconclusive. Lower contact is at 75 degrees to core axis.

Interpretation: May be consistent with Heim's rock suite 2b.

Mineralization	80.43	81.40	33.0%	Po	Pyrrhotite
				STR	Stringers
				locally net textured and semi massive stringers; po-pn-cpy	
Alteration	80.43	81.40	CH	Chlorite	
			P	Pervasive	
			S	Strong	

Detailed Lithology

From	To	Lithology
81.40	82.50	**4s Sausseritized/Tectonized Anorthosite** Medium grained, mottled, white and grey anorthosite. Unit is cross cut by mm to cm scale foliation parallel quartz veins. Dm to m scale mafic dykes/flows intrude the unit.
82.50	84.28	**6e Ultramafic Schist** Fine grained, highly altered (chloritized) ultramafic schist. Mineralization consists of 45-50% sulphides (po-pn-cpy-py) over length. Visible pentlandite "eyes". Net-textured on dm scale. Locally semi- massive stringers. Cm scale unmineralized patches. In the vicinity of 83.20m, cm scale dark patches are observed within an unmineralized portion of the unit. Relict pyroxenes? Upper and lower contacts are near perpendicular to core axis. Interpretation: May be consistent with Heim's rock suite 2b. **Mineralization** 82.51 84.28 50.0% Po Pyrrhotite NT Net-Textured po-pn-cpy-py; visible pentlandite "eyes" **Alteration** 82.51 84.28 CH Chlorite P Pervasive S Strong
84.28	87.00	**10f Mafic dykes** Fine-medium grained mafic dyke/flow. **Minor Interval** 86.60 87.00 **6e Ultramafic Schist** Ultramafic schist with 10% po and 5% cp in several 2-15mm wide veinlets. **Mineralization** 86.66 87.00 5.0% Po Pyrrhotite STR Stringers with minor ccp

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00233	81.40	82.50	1.10	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25
PG00234	82.50	83.00	0.50	3.29	1.38	0.17	23.40	0.04	0.03	0.03	1.40
PG00235	83.00	83.50	0.50	2.92	0.68	0.13	18.20	0.05	0.03	0.01	0.80
PG00236	83.50	84.30	0.80	2.94	1.30	0.12	18.10	0.10	0.05	0.02	1.00
PG00237	84.30	85.00	0.70	0.03	0.03	0.01	0.20	0.01	0.01	0.01	0.25
PG00238	85.00	86.00	1.00	0.03	0.03	0.01	0.38	0.01	0.01	0.01	0.25
PG00239	86.00	87.00	1.00	0.34	0.49	0.01	2.52	0.03	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
87.00	87.50	**MS MASSIVE SULPHIDE (>75%)** 20% fine grained, highly altered (chloritized) ultramafic schist and 80% massive sulphides (po-cpy-pn-py); visible pentlandite "eyes". Upper contact slightly diffuse and at about 75 degrees to core axis. Lower contact at about 80 degrees to core axis. Interpretation: May be consistent with Heim's rock suite 2b. **Mineralization** 87.00 87.50 93.0% Po Pyrrhotite M Massive po-cpy-pn-py; visible pentlandite "eyes" **Alteration** 87.00 87.50 CH Chlorite P Pervasive S Strong
87.50	92.00	**10f Mafic dykes** Fine grained, well foliated, unmineralized, green mafic dyke as 84.28-87m. Uphole contact approximately perpendicular to CA; downhole contact at 80° to CA.
92.00	93.10	**4s Sausseritized/Tectonized Anorthosite** Fine to medium grained, sheared, white and green anorthosite as previously.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00240	87.00	87.50	0.50	5.55	5.42	0.16	31.10	0.05	0.07	0.08	3.60
PG00241	87.50	88.50	1.00	0.11	0.07	0.01	0.47	0.01	0.01	0.01	0.25
PG03094	88.50	89.50	1.00	0.03	0.03	0.01	0.14	0.02	0.01	0.01	0.25
PG03095	89.50	90.50	1.00	0.03	0.03	0.01	0.05	0.08	0.02	0.02	0.25
PG03096	90.50	92.00	1.50	0.03	0.06	0.01	0.26	0.01	0.01	0.01	0.25
PG00242	92.00	93.10	1.10	0.03	0.03	0.01	0.16	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
93.10	95.00	**MS MASSIVE SULPHIDE (>75%)** Fine grained, highly altered (chloritized) ultramafic schist. Mineralization consists of 75-80% sulphides (po-pn-cpy-py) over length. Visible pentlandite "eyes". From 93.10m to 93.22m, only ~trace sulphides. From 93.22m to 95m, 90-95% (massive) sulphides. Minor cm to dm scale unmineralized fragments. Upper contact at 45 degrees to core axis. Lower contact appears to be near perpendicular to core axis (missing piece). Interpretation: May be consistent with Heim's rock suite 2b. **Mineralization** 93.10 93.22 0.5% Po Pyrrhotite TR Trace **Mineralization** 93.22 95.00 95.0% Po Pyrrhotite M Massive po-pn-cpy; visible pentlandite "eyes" **Alteration** 93.10 95.00 CH Chlorite P Pervasive S Strong

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00243	93.10	94.00	0.90	6.56	1.87	0.20	30.60	0.03	0.06	0.05	1.00
PG00244	94.00	95.00	1.00	7.22	2.21	0.21	33.40	0.21	0.59	0.06	1.20

Detailed Lithology			Assay Data											
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
95.00	139.20	**4s Sausseritized/Tectonized Anorthosite** Inhomogenous, medium grained, well foliated to banded altered and tectonized anorthosite. Consists of 70-80% white plagioclase, 15-20% pale green sericite (?) and 5-10% dark green, chloritized mafic minerals. Locally cross-cut by cm to dm scale schistose ultramafic dykes. Progressively more leucocratic with increasing depth. **Minor Interval** 128.05 131.00 **10f Mafic dykes** Unmineralized, fine-medium grained mafic dyke/flow. Upper contact at 40 degrees to core axis. Lower contact perpendicular to axis. **Minor Interval** 131.50 132.40 **10f Mafic dykes** Unmineralized, fine-medium grained mafic dyke/flow. Upper and lower contacts at 75 degrees to core axis. **Alteration** 137.00 139.19 HM Hematite ST Staining M Moderate **Structure** 114.50 114.51 Sm General Foliation	PG00245	95.00	96.00	1.00	0.06	0.12	0.01	0.24	0.01	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2004-09

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03106	72.50	73.50	1.00	0.03	0.03	0.01	0.07	0.01	0.02	0.01	0.25																
PG03107	73.50	74.85	1.35	0.46	0.12	0.01	2.11	0.01	0.01	0.01	0.25																
PG03108	74.85	75.60	0.75	0.03	0.03	0.01	0.01	0.01	0.03	0.01	0.25																
PG00231	79.40	80.40	1.00	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25																
PG00232	80.40	81.40	1.00	3.39	2.03	0.12	19.50	0.02	0.04	0.08	1.70																
PG00233	81.40	82.50	1.10	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25																
PG00234	82.50	83.00	0.50	3.29	1.38	0.17	23.40	0.03	0.04	0.03	1.40																
PG00235	83.00	83.50	0.50	2.92	0.68	0.13	18.20	0.01	0.05	0.03	0.80																
PG00236	83.50	84.30	0.80	2.94	1.30	0.12	18.10	0.02	0.10	0.05	1.00																
PG00237	84.30	85.00	0.70	0.03	0.03	0.01	0.20	0.01	0.01	0.01	0.25																
PG00238	85.00	86.00	1.00	0.03	0.03	0.01	0.38	0.01	0.01	0.01	0.25																
PG00239	86.00	87.00	1.00	0.34	0.49	0.01	2.52	0.01	0.03	0.01	0.25																
PG00240	87.00	87.50	0.50	5.55	5.42	0.16	31.10	0.08	0.05	0.07	3.60																
PG00241	87.50	88.50	1.00	0.11	0.07	0.01	0.47	0.01	0.01	0.01	0.25																
PG03094	88.50	89.50	1.00	0.03	0.03	0.01	0.14	0.01	0.02	0.01	0.25																
PG03095	89.50	90.50	1.00	0.03	0.03	0.01	0.05	0.02	0.08	0.02	0.25																
PG03096	90.50	92.00	1.50	0.03	0.06	0.01	0.26	0.01	0.01	0.01	0.25																
PG00242	92.00	93.10	1.10	0.03	0.03	0.01	0.16	0.01	0.01	0.01	0.25																
PG00243	93.10	94.00	0.90	6.56	1.87	0.20	30.60	0.05	0.03	0.06	1.00																
PG00244	94.00	95.00	1.00	7.22	2.21	0.21	33.40	0.06	0.21	0.59	1.20																
PG00245	95.00	96.00	1.00	0.06	0.12	0.01	0.24	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2004-09

Depth	Conductivity (Siemens)	COMMENTS
80.90	999.00	1136
81.30	974.20	
83.10	999.00	1399
87.25	999.00	1343
93.30	999.00	1871
93.80	999.00	2140
94.40	999.00	1387
94.70	999.00	1685

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-09

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
9.50	0.64	
10.50	0.17	
11.50	0.16	
12.50	0.20	
13.50	0.26	
14.50	0.39	
15.50	0.55	
16.50	0.53	
17.50	0.47	
18.50	0.20	
19.50	0.24	
20.50	0.55	
21.50	0.54	
22.50	0.59	
23.50	0.20	
24.50	0.13	
25.50	0.17	
26.50	0.47	
27.50	0.45	
28.50	0.39	
29.50	0.40	
30.50	0.43	
31.50	0.22	
32.50	0.02	
33.50	0.21	
34.50	0.16	
35.50	0.16	
36.50	0.18	
37.50	0.20	
38.50	0.20	
39.50	0.23	
40.50	0.21	
41.50	0.16	
42.50	0.08	
43.50	0.10	
44.50	0.12	
45.50	0.15	
46.50	0.23	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-09
47.50	0.19	
48.50	0.10	
49.50	0.11	
50.50	0.14	
51.50	0.18	
52.50	0.21	
53.50	0.13	
54.50	0.18	
55.50	0.39	
56.50	0.56	
57.50	0.20	
58.50	0.16	
59.50	0.16	
60.50	0.23	
61.50	0.46	
62.50	0.44	
63.50	0.42	
64.50	0.82	
65.50	0.25	
66.50	0.14	
67.50	0.25	
68.50	0.24	
69.50	0.57	
70.50	0.18	
71.50	0.21	
72.50	0.44	
73.50	21.00	
74.50	1.50	
75.50	0.18	
76.50	0.22	
77.50	0.11	
78.50	0.15	
79.50	0.09	
80.50	23.60	
81.50	8.18	
82.50	18.00	
83.50	19.60	
84.50	0.03	
85.50	0.46	
86.50	0.45	
87.50	5.70	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-09
88.50	0.41	
89.50	0.32	
90.50	0.45	
91.50	0.44	
92.50	0.15	
93.50	29.80	
94.50	90.20	
95.50	0.46	
96.50	0.86	
97.50	0.03	
98.50	0.06	
99.50	0.13	
100.50	0.14	
101.50	0.12	
102.50	0.10	
103.50	0.13	
104.50	0.05	
105.50	0.06	
106.50	0.14	
107.50	0.08	
108.50	0.07	
109.50	0.23	
110.50	0.10	
111.50	0.05	
112.50	0.07	
113.50	0.30	
114.50	0.10	
115.50	0.06	
116.50	0.12	
117.50	0.12	
118.50	0.10	
119.50	0.06	
120.50	0.17	
121.50	0.25	
122.50	0.32	
123.50	0.14	
124.50	0.07	
125.50	0.76	
126.50	0.06	
127.50	0.10	
128.50	0.51	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-09
129.50	0.46	
130.50	0.48	
131.50	0.48	
132.50	0.07	
133.50	0.03	
134.50	0.03	
135.50	0.05	
136.50	0.07	
137.50	0.06	
138.50	0.03	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-09

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
8.80	11.00	15	95	N	
11.00	14.00	32	100	N	
14.00	17.00	68	100	N	
17.00	20.00	70	100	N	
20.00	23.00	69	100	N	
23.00	26.00	66	100	N	
26.00	29.00	63	100	N	
29.00	32.00	82	100	N	
32.00	35.00	88	100	N	
35.00	38.00	82	98	N	
38.00	41.00	68	100	N	
41.00	44.00	70	100	N	
44.00	47.00	64	100	N	
47.00	50.00	69	100	N	
50.00	53.00	31	100	N	
53.00	56.00	42	100	N	
56.00	59.00	49	95	N	
59.00	62.00	71	98	N	
62.00	65.00	74	98	N	
65.00	68.00	38	100	N	
68.00	71.00	43	100	N	
71.00	74.00	65	100	N	
74.00	77.00	66	100	N	
77.00	80.00	55	98	N	
80.00	83.00	37	95	N	
83.00	86.00	63	100	N	
86.00	89.00	59	100	N	
89.00	92.00	41	100	N	
92.00	95.00	76	100	N	
95.00	98.00	77	100	N	
98.00	101.00	80	100	N	
101.00	104.00	75	100	N	
104.00	107.00	66	100	N	
107.00	110.00	62	100	N	
110.00	113.00	60	100	N	
113.00	116.00	57	100	N	
116.00	119.00	70	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-09

119.00	122.00	85	100	N	
122.00	125.00	65	100	N	
125.00	128.00	68	100	N	
128.00	131.00	84	100	N	
131.00	134.00	70	100	N	
134.00	137.00	62	95	N	
137.00	139.20	35	100	N	

Detailed Log

Hole Number: **ES2004-10** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Multishot Survey:	N	Hole Size:	TT46	Contractor:	Geo Drilling A/S
Date Started:	9/1/2004	Pulse EM Survey:	Y				
Date Completed:	9/5/2004	Casing:	Left in Hole, capped			Logged by:	P. Tirschmann
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	9,325,372.15	Local Northing:	2858.74
UTM Easting:	3,731,798.97	Local Easting:	8507.84
Elevation: 967.98			

Collar Dip:	-50.00
Collar Azimuth:	230.00
Length:	129.65

Comments

Purpose: To test UTEM conductor ESP_16_16. Conductivity =600 siemens

Result: Intersected variably mineralized, zoned UM body between 50.8m and 83.15m. Conductor can be correlated with the following zones of mineralized ultramafic:
65-73m (8m): 3-15% po disseminations, blebs and stringers in dunite/peridotite
76-79m (3m): 5-10% po blebs, stringers and veinlets in peridotite

Assays: 0.52% Ni, 0.12% Cu, 0.02% Co / 1.00m (65.00-66.00m) (Best)

Borehole UTEM: In-hole response centered @68m.

Lithological interpretation: Anorthositic terrain intruded by mafic dykes and a mineralized ultramafic body.

Detailed Lithology

From	To	Lithology
0.00	1.79	**C Casing**
1.79	12.60	**10f Mafic dykes** Fine to medium grained, greyish-green mafic dyke. Crosscut by several percent 1-15mm wide white carbonate veinlets. Downhole contact is gradational chilled over approx. 5cm; 60-75 degrees to CA. Magnetic Susceptibility: <1 Conductivity: Non-conductive Interpretation: Unit could be either a gabbroic dyke or a coarse grained mafic metavolcanic flow. (More likely a gabbroic dyke if bounded by anorthosite). Similar units logged as mafic dykes in drillholes ES-2004-05, 06 & 07 (P4 area) and ES-2004-08 & 09 (P2 area).

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data											
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
12.60	31.60	**4 Anorthosite / Anorthositic Gabbro** White to grey medium grained anorthosite consisting of 80-90% feldspar and 10-20% interstitial soft, green, altered mafic (?) minerals. Local grain size reduction due to shearing. Unit becomes progressively more altered and tectonized downhole. Downhole contact gradational. Cross-cut by 2 narrow ultramafic dykes (see minor intervals). Magnetic Susceptibility: <0.5 Conductivity: Non-conductive **Minor Interval** 23.42 24.10 **8e Pyroxenite** Fine grained, dark green melano-gabbro to pyroxenite dyke. Contacts sharp; uphole contact at 60 degrees to CA; downhole contact at 50 degrees to CA. Related to uphole gabbroic unit? **Minor Interval** 24.90 25.45 **8e Pyroxenite** Fine grained, dark green melano-gabbro to pyroxenite dyke. Contacts sharp; uphole contact at 50-55 degrees to CA; downhole contact at approx. 75 degrees to CA. Related to uphole gabbroic unit? **Structure** 30.40 30.41 Sm General Foliation Shearing													
31.60	50.80	**4s Sausseritized/Tectonized Anorthosite** Inhomogenous, banded white, grey and pale green sausseritized and sheared anorthosite. Consists of fine grained, sheared sericite and feldspar-rich rock surrounding lozenges of what appears to be coarser grained, equigranular, white anorthosite as uphole. Grain size reduction with shearing evident; locally mylonitized. Magnetic Susceptibility: <0.5 Conductivity: non-conductive Interpretation: Altered, tectonized anorthosite based on gradation to more recognizable anorthosite uphole. **Minor Interval** 42.65 43.03 **10f Mafic dykes** Pale green, aphanitic mafic dyke. Contacts sharp; uphole contact at 40 degrees to CA; downhole contact at 65 degrees to CA. **Structure** 34.50 34.51 Sm General Foliation **Structure** 39.70 39.71 Sm General Foliation **Structure** 43.40 43.41 Sm General Foliation **Structure** 49.90 49.91 Sm General Foliation	PG00246	49.00	50.00	1.00	0.03	0.03	0.01	0.04	0.01	0.01	0.01	0.25
			PG00247	50.00	50.80	0.80	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
50.80	83.15	**6 Undivided Ultramafic Intrusive** Fine to medium grained, dark green to black zoned (?) ultramafic body containing trace to, locally, 15% sulphides (po, minor cp) occurring as blebs, disseminations and stringers. Shows less evidence of tectonization compared to surrounding anorthosites. Massive to locally foliated . Several cm to dm scale inclusions (?) of altered, brownish green, fine grained, equigranular gabbroic rock adjacent to downhole contact between 81m and 83.15m. 50.8-65m: Fairly soft, pyroxenitic (?) ultramafic largely altered to chlorite, serpentine and talc +- phlogopite. Locally contains mm to cm scale, rounded grains altered to phlogopite (formerly pyroxenes?). Trace disseminated sulphides. Mag sus ranges from <1 to 2.5; non-conductive. 65-73; Medium grained, dark green to black, cumulate textured, well-mineralized dunite/peridotite containing 3-15% sulphide blebs , disseminations & minor fracture fillings (esp. cp). Sulphides locally strung out parallel to foliation. Mag Sus ranges from 2-20; conductivity = 10-30, locally 200 (eg. 65.7m). 73-83.15m: Medium grained, dark green, variably altered peridotitic to pyroxenitic ultramafic containing 1-5% sulphide blebs, disseminations and stringers. Two intervals of fine grained equigranular, melanonorite (?) from 81-81.90m and 82.75-83.15m. Mag sus highly variable (1-50) but averages 15-20; conductivity = 10-60; locally 100-300. Uphole contact sharp at 55 degrees to CA; Downhole contact at approx. 50 degrees to CA. Interpretation: Zoned ultramafic body consisting of a mineralized dunitic to peridotitic core surrounded by peridotitic to pyroxenitic phases. Body interpreted to intrude surrounding anorthosites. **Minor Interval** 62.90 64.35 **4s Sausseritized/Tectonized Anorthosite** **Mineralization** 50.80 53.00 0.5% Po Pyrrhotite STR Stringers Trace po veinlets locally. **Mineralization** 65.00 73.00 8.0% Po Pyrrhotite BB Blebby 3-15% po, tr cp occurring as disseminations, blebs & stringers

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00248	50.80	52.00	1.20	0.11	0.07	0.01	0.85	0.01	0.01	0.01	0.25
PG00249	52.00	53.00	1.00	0.12	0.06	0.01	0.69	0.01	0.01	0.01	0.25
PG03001	53.00	54.00	1.00	0.06	0.03	0.01	0.16	0.06	0.01	0.02	0.25
PG03002	54.00	55.00	1.00	0.08	0.03	0.02	0.26	0.01	0.01	0.01	0.25
PG03003	55.00	56.00	1.00	0.09	0.03	0.01	0.44	0.01	0.01	0.01	0.25
PG03004	56.00	57.00	1.00	0.07	0.05	0.01	0.10	0.02	0.01	0.01	0.25
PG03005	57.00	58.00	1.00	0.23	0.07	0.01	0.36	0.02	0.01	0.01	0.25
PG03006	58.00	59.00	1.00	0.14	0.03	0.02	0.27	0.01	0.01	0.01	0.25
PG03007	59.00	60.00	1.00	0.03	0.03	0.01	0.18	0.01	0.01	0.01	0.25
PG03008	60.00	61.00	1.00	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25
PG03009	61.00	62.00	1.00	0.03	0.05	0.01	0.01	0.01	0.01	0.01	0.25
PG03010	62.00	62.90	0.90	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25
PG03011	62.90	64.35	1.45	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25
PG03012	64.35	65.00	0.65	0.08	0.03	0.01	0.19	0.02	0.01	0.01	0.25
PG03013	65.00	66.00	1.00	0.52	0.12	0.02	4.24	0.02	0.02	0.01	0.50
PG03014	66.00	67.00	1.00	0.33	0.31	0.03	3.13	0.01	0.01	0.03	1.10
PG03015	67.00	68.00	1.00	0.26	0.17	0.01	1.82	0.02	0.01	0.02	0.60
PG03016	68.00	69.00	1.00	0.30	0.28	0.03	2.50	0.03	0.01	0.13	1.20
PG03017	69.00	70.00	1.00	0.37	0.33	0.01	2.81	0.02	0.02	0.03	1.10
PG03018	70.00	71.00	1.00	0.42	0.37	0.02	3.14	0.01	0.01	0.01	0.80
PG03019	71.00	72.00	1.00	0.29	0.10	0.01	1.93	0.02	0.01	0.01	0.25
PG03020	72.00	73.00	1.00	0.20	0.09	0.01	1.13	0.01	0.01	0.01	0.25
PG03021	73.00	74.00	1.00	0.16	0.09	0.03	0.95	0.02	0.01	0.01	0.25
PG03022	74.00	75.00	1.00	0.21	0.09	0.02	1.42	0.01	0.02	0.02	0.25
PG03023	75.00	76.00	1.00	0.26	0.17	0.01	2.00	0.01	0.02	0.01	0.25
PG03024	76.00	77.00	1.00	0.47	0.31	0.03	3.88	0.03	0.03	0.01	0.90
PG03026	77.00	78.00	1.00	0.46	0.11	0.01	3.72	0.01	0.03	0.01	0.25
PG03027	78.00	79.00	1.00	0.28	0.11	0.02	2.32	0.01	0.02	0.01	0.25
PG03028	79.00	80.00	1.00	0.23	0.19	0.02	1.36	0.01	0.02	0.06	0.60
PG03029	80.00	81.00	1.00	0.30	0.17	0.02	2.33	0.03	0.03	0.02	0.60
PG03030	81.00	81.90	0.90	0.09	0.11	0.01	0.11	0.04	0.04	0.01	0.25
PG03031	81.90	82.75	0.85	0.08	0.08	0.01	0.67	0.01	0.01	0.01	0.25
PG03032	82.75	83.15	0.40	0.06	0.03	0.04	0.03	0.02	0.02	0.01	0.25

Detailed Lithology

From	To	Lithology
83.15	110.44	**4s Sausseritized/Tectonized Anorthosite** Inhomogenous, white, grey and green altered and tectonized anorthosite similar to 31.6-50.8m. Consists of cm to dm scale interval of medium grained, equigranular white and grey anorthosite bounded by much finer grained, foliated, highly sheared anorthosite. Pervasively sausseritized. Rare trace disseminated py (eg. 96m). Appears to be cross-cut by narrow (0.5m) wide serpentinized, ultramafic dykes (eg. 89.6-89.9m, 90.1-90.35m, 92.65-93.15m, 94-94.2m, 99-99.35m) between uphole contact and 100m. Ultramafic dykes locally contain trace po. Sheared at downhole contact; contact estimated at 80 degrees to CA. Magnetic Susceptibility: <0.50 Conductivity: Non-conductive **Structure** 85.70 85.71 Sm General Foliation **Structure** 98.55 98.56 Sm General Foliation **Structure** 106.20 106.21 Sm General Foliation
110.44	129.65	**10f Mafic dykes** Weakly foliated, homogenous , fine grained, dark green mafic dyke. Crosscut by trace to 2% percent 1-5mm wide white carbonate veinlets. Patchy, pale green bleaching of rock locally (eg. 116.5-120m). Rare trace disseminated pyrite. Magnetic Susceptibility: <1, typically 0.5-1. Conductivity: Non-conductive Interpretation: Melano-gabbroic dyke. **Structure** 114.20 114.21 Sm General Foliation **Structure** 124.20 124.21 Sm General Foliation **Structure** 128.65 128.66 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03033	83.15	84.00	0.85	0.03	0.03	0.01	0.05	0.01	0.01	0.01	0.25
PG03034	84.00	85.00	1.00	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25
PG03035	87.60	88.00	0.40	0.07	0.07	0.01	2.15	0.02	0.01	0.02	0.25
PG03036	89.00	89.50	0.50	0.03	0.03	0.01	0.93	0.02	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2004-10

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00246	49.00	50.00	1.00	0.03	0.03	0.01	0.04	0.01	0.01	0.01	0.25																
PG00247	50.00	50.80	0.80	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25																
PG00248	50.80	52.00	1.20	0.11	0.07	0.01	0.85	0.01	0.01	0.01	0.25																
PG00249	52.00	53.00	1.00	0.12	0.06	0.01	0.69	0.01	0.01	0.01	0.25																
PG03001	53.00	54.00	1.00	0.06	0.03	0.01	0.16	0.02	0.06	0.01	0.25																
PG03002	54.00	55.00	1.00	0.08	0.03	0.02	0.26	0.01	0.01	0.01	0.25																
PG03003	55.00	56.00	1.00	0.09	0.03	0.01	0.44	0.01	0.01	0.01	0.25																
PG03004	56.00	57.00	1.00	0.07	0.05	0.01	0.10	0.01	0.02	0.01	0.25																
PG03005	57.00	58.00	1.00	0.23	0.07	0.01	0.36	0.01	0.02	0.01	0.25																
PG03006	58.00	59.00	1.00	0.14	0.03	0.02	0.27	0.01	0.01	0.01	0.25																
PG03007	59.00	60.00	1.00	0.03	0.03	0.01	0.18	0.01	0.01	0.01	0.25																
PG03008	60.00	61.00	1.00	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG03009	61.00	62.00	1.00	0.03	0.05	0.01	0.01	0.01	0.01	0.01	0.25																
PG03010	62.00	62.90	0.90	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG03011	62.90	64.35	1.45	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG03012	64.35	65.00	0.65	0.08	0.03	0.01	0.19	0.01	0.02	0.01	0.25																
PG03013	65.00	66.00	1.00	0.52	0.12	0.02	4.24	0.01	0.02	0.02	0.50																
PG03014	66.00	67.00	1.00	0.33	0.31	0.03	3.13	0.03	0.01	0.01	1.10																
PG03015	67.00	68.00	1.00	0.26	0.17	0.01	1.82	0.02	0.02	0.01	0.60																
PG03016	68.00	69.00	1.00	0.30	0.28	0.03	2.50	0.13	0.03	0.01	1.20																
PG03017	69.00	70.00	1.00	0.37	0.33	0.01	2.81	0.03	0.02	0.02	1.10																
PG03018	70.00	71.00	1.00	0.42	0.37	0.02	3.14	0.01	0.01	0.01	0.80																
PG03019	71.00	72.00	1.00	0.29	0.10	0.01	1.93	0.01	0.02	0.01	0.25																
PG03020	72.00	73.00	1.00	0.20	0.09	0.01	1.13	0.01	0.01	0.01	0.25																
PG03021	73.00	74.00	1.00	0.16	0.09	0.03	0.95	0.01	0.02	0.01	0.25																
PG03022	74.00	75.00	1.00	0.21	0.09	0.02	1.42	0.02	0.01	0.02	0.25																
PG03023	75.00	76.00	1.00	0.26	0.17	0.01	2.00	0.01	0.01	0.02	0.25																
PG03024	76.00	77.00	1.00	0.47	0.31	0.03	3.88	0.01	0.03	0.03	0.90																
PG03026	77.00	78.00	1.00	0.46	0.11	0.01	3.72	0.01	0.01	0.03	0.25																

Espedalen - Analysis

Hole Number: ES2004-10

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03027	78.00	79.00	1.00	0.28	0.11	0.02	2.32	0.01	0.01	0.02	0.25																
PG03028	79.00	80.00	1.00	0.23	0.19	0.02	1.36	0.06	0.01	0.02	0.60																
PG03029	80.00	81.00	1.00	0.30	0.17	0.02	2.33	0.02	0.03	0.03	0.60																
PG03030	81.00	81.90	0.90	0.09	0.11	0.01	0.11	0.01	0.04	0.04	0.25																
PG03031	81.90	82.75	0.85	0.08	0.08	0.01	0.67	0.01	0.01	0.01	0.25																
PG03032	82.75	83.15	0.40	0.06	0.03	0.04	0.03	0.01	0.02	0.02	0.25																
PG03033	83.15	84.00	0.85	0.03	0.03	0.01	0.05	0.01	0.01	0.01	0.25																
PG03034	84.00	85.00	1.00	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG03035	87.60	88.00	0.40	0.07	0.07	0.01	2.15	0.02	0.02	0.01	0.25																
PG03036	89.00	89.50	0.50	0.03	0.03	0.01	0.93	0.01	0.02	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2004-10

Depth	Conductivity (Siemens)	COMMENTS
65.40	26.40	
72.50	66.30	
73.50	215.30	
76.90	93.10	
77.10	119.40	
77.20	393.10	
78.55	66.70	
80.70	73.50	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-10

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
2.50	0.49	
3.50	0.51	
4.50	0.33	
5.50	0.47	
6.50	0.46	
7.50	0.53	
8.50	0.62	
9.50	0.31	
10.50	0.40	
11.50	0.44	
12.50	0.42	
13.50	0.19	
14.50	0.11	
15.50	0.10	
16.50	0.13	
17.50	0.15	
18.50	0.12	
19.50	0.09	
20.50	0.09	
21.50	0.15	
22.50	0.33	
23.50	0.34	
24.50	0.16	
25.50	0.38	
26.50	0.15	
27.50	0.08	
28.50	0.14	
29.50	0.14	
30.50	0.09	
31.50	0.07	
32.50	0.12	
33.50	0.12	
34.50	0.12	
35.50	0.19	
36.50	0.22	
37.50	0.16	
38.50	0.06	
39.50	0.12	

Espedalen - Magnetic Susceptibility	Hole Number: ES2004-10

40.50	0.02	
41.50	0.33	
42.50	1.18	
43.50	0.22	
44.50	0.23	
45.50	0.09	
46.50	0.14	
47.50	0.06	
48.50	0.05	
49.50	0.06	
50.50	0.30	
51.50	2.18	
52.50	2.49	
53.50	0.37	
54.50	0.50	
55.50	0.52	
56.50	0.48	
57.50	0.56	
58.50	1.23	
59.50	0.24	
60.50	0.26	
61.50	0.29	
62.50	0.23	
63.50	0.19	
64.50	0.34	
65.50	6.85	
66.50	10.40	
67.50	2.80	
68.50	8.35	
69.50	4.34	
70.50	7.86	
71.50	7.04	
72.50	18.20	
73.50	6.57	
74.50	22.10	
75.50	14.90	
76.50	22.10	
77.50	48.40	
78.50	12.50	
79.50	21.60	
80.50	62.70	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-10
81.50	27.40	
82.50	1.72	
83.50	0.09	
84.50	0.04	
85.50	0.17	
86.50	0.14	
87.50	0.09	
88.50	0.22	
89.50	0.06	
90.50	0.06	
91.50	0.07	
92.50	0.11	
93.50	0.15	
94.50	0.23	
95.50	0.07	
96.50	0.16	
97.50	0.12	
98.50	0.04	
99.50	0.11	
100.50	0.08	
101.50	0.11	
102.50	0.10	
103.50	0.09	
104.50	0.03	
105.50	0.04	
106.50	0.19	
107.50	0.09	
108.50	0.10	
109.50	0.07	
110.50	0.66	
111.50	0.68	
112.50	0.69	
113.50	0.70	
114.50	0.60	
115.50	0.53	
116.50	0.63	
117.50	0.56	
118.50	0.39	
119.50	0.50	
120.50	0.12	
121.50	0.52	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-10
122.50	0.49	
123.50	0.47	
124.50	0.42	
125.50	0.41	
126.50	0.31	
127.50	0.52	
128.50	0.49	
129.50	0.44	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-10

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
1.79	4.00	79	98	N	
4.00	7.00	40	100	N	
7.00	10.00	68	100	N	
10.00	13.00	27	100	N	
13.00	16.00	72	100	N	
16.00	19.00	74	100	N	
19.00	22.00	54	100	N	
22.00	25.00	64	100	N	
25.00	28.00	77	100	N	
28.00	31.00	52	100	N	
31.00	34.00	48	95	N	
34.00	37.00	64	100	N	
37.00	40.00	63	100	N	
40.00	43.00	69	100	N	
43.00	46.00	67	100	N	
46.00	49.00	79	100	N	
49.00	52.00	61	100	N	
52.00	55.00	69	100	N	
55.00	58.00	89	100	N	
58.00	61.00	65	100	N	
61.00	64.00	53	100	N	
64.00	67.00	36	95	N	
67.00	70.00	67	100	N	
70.00	73.00	24	98	N	
73.00	76.00	45	98	N	
76.00	79.00	75	100	N	
79.00	82.00	70	100	N	
82.00	85.00	74	98	N	
85.00	88.00	62	100	N	
88.00	91.00	82	100	N	
91.00	94.00	84	100	N	
94.00	97.00	54	100	N	
97.00	100.00	76	100	N	
100.00	103.00	63	100	N	
103.00	106.00	54	100	N	
106.00	109.00	29	100	N	
109.00	112.00	79	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-10

112.00	115.00	96	100	N	
115.00	118.00	98	100	N	
118.00	121.00	85	100	N	
121.00	124.00	97	100	N	
124.00	127.00	91	100	N	
127.00	129.65	79	95	N	

Detailed Log

Hole Number: **ES2004-11** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y Plugged N	UTM WGS 84 Coord	Local Coord	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N Hole Size: TT46	UTM Northing: 9,325,372.15	Local Northing: 4653.45	Contractor:	Geo Drilling A/S
Date Started:	9/6/2004	Pulse EM Survey:	N	UTM Easting: 3,731,798.97	Local Easting: 794.23	Logged by:	P. Tirschmann
Date Completed:	9/8/2004	Casing:	Left in Hole, capped	Elevation: 967.98			
		Location:	Surface				

Collar Dip: -82.00
Collar Azimuth: 50.00
Length: 86.00

Comments

Purpose: To test UTEM conductor ESP_12_12. Three (3) conductive plates modelled, each with a conductivity of 150 siemens.

Result: Mineralized peridotite was intersected from 48.45m-54.75m, which contains an average of 5-10% pyrrhotite with minor pyrite and chalcopyrite. A nine cm wide semi-massive sulphide vein marks the lower contact of this mineralized unit.

Assays: 0.62% Ni, 0.40% Cu, 0.03% Co / 0.65m (53.10-53.75m) (best)

Lithological interpretation: Mineralized ultramafic (peridotite) grading to gabbronoritic / pyroxenitic rocks which have intruded banded to laminated quartzofeldspathic country rocks which may be either metasediments or tectonized/silicified anorthositic country rocks (equivalent to M. Heim's "hybrid rocks").

Detailed Lithology

From	To		Lithology
0.00	2.00	C	**Casing**
2.00	5.95	5	**Undivided Metasediments** Banded to laminated, grey and green quartzofeldspathic rock consisting of 70% quartz+feldspar, 25-29% biotite+chlorite, 0-1% garnet, 0-1% magnetite and trace pyrite. Intruded downhole by gabbroic unit, contact sharp but irregular at 40-50 degrees to CA. Magnetic susceptibility: Highly variable from <1 to 18. Conductivity: Non-conductive. Interpretation: Equivalent to M. Heims "hybrid rocks"? Tectonized, silicified anorthositic rocks, Does not look as much like siliceous metasediments as units observed in Andreasberg drillholes ES2004-01 and ES2004-02. **Structure** 3.50 3.51 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
5.95	48.45	**6f Norite** Well foliated to locally banded, medium grained inhomogeneous dark green to green and white, amphibole-rich unit ranging from amphibolitic gabbro/norite to pyroxenite. Locally contains cm to dm scale grey, feldspar-rich bands (silicified anorthosite?) similar to 2-5.95m (eg. 9.95-10.2m, 16.4-16.6m, 17.45-19.1m, 20.9-21.25m, 25.05-25.95m) and decreasing in abundance downhole. Unit contains trace to 10% po downhole from 37.50m and increasing in abundance downhole. Pyrrhotite occurs as disseminations and blebs locally forming a net texture. One 3 cm wide semi-massive band at 46.92m. Downhole contact interpreted at sharp transition to more homogenous, dark green to black mineralized ultramafic; irregular, estimated at 55-60 degrees to CA. Magnetic susceptibility: Highly variable from < 1 to 42; body as a whole would form a mag high; average estimated as 10-15. Conductivity: Non-conductive to locally conductive where po-bearing (20-120). Interpretation: Gabbro-norite and pyroxenite related to mineralized ultramafic. **Minor Interval** 11.90 12.15 **8e Pyroxenite** Dark grey/green aphanitic magnetic ultramafic dyke cross-cutting gabbronorite. Trace pyrite along fractures. Uphole contact sharp at 55 degrees to CA; downhole contact not as sharp and difficult to see as it is in contact with a slightly coarser pyroxenite. **Minor Interval** 37.50 37.80 **6d Pyroxenite** Foliated, fine grained, dark green pyroxenite containing 3-4% pyrrhotite blebs. Highly sheared along uphole contact. Moderately conductive. **Mineralization** 37.50 37.80 3.0% Po Pyrrhotite BB Blebby 3-4% po blebs strung out parallel to foliati **Mineralization** 41.55 46.50 2.0% Po Pyrrhotite D Disseminated Trace - 5% po **Mineralization** 46.50 47.50 7.0% Po Pyrrhotite STR Stringers 5-10% po as stringers and one 3cm wide semi-massive band at 47.92m; 1% cp witl po **Mineralization** 47.50 48.45 0.5% Po Pyrrhotite D Disseminated **Structure** 8.60 8.61 Sm General Foliation **Structure** 14.25 14.26 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03037	37.00	37.50	0.50	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25
PG03038	37.50	37.80	0.30	0.35	0.23	0.02	3.06	0.03	0.07	0.01	0.25
PG03039	37.80	38.50	0.70	0.05	0.03	0.01	0.67	0.02	0.02	0.05	0.25
PG03040	40.55	41.55	1.00	0.25	0.16	0.02	2.62	0.02	0.06	0.15	0.25
PG03041	41.55	42.55	1.00	0.10	0.09	0.01	0.87	0.02	0.03	0.01	0.25
PG03042	42.55	43.55	1.00	0.07	0.05	0.01	0.64	0.03	0.05	0.01	0.25
PG03043	43.55	44.55	1.00	0.21	0.21	0.01	1.82	0.09	0.21	0.03	0.50
PG03044	44.55	45.55	1.00	0.23	0.17	0.01	2.00	0.03	0.04	0.02	0.25
PG03045	45.55	46.50	0.95	0.23	0.08	0.01	1.51	0.03	0.05	0.01	0.25
PG03046	46.50	47.50	1.00	0.30	0.24	0.01	2.28	0.02	0.03	0.01	0.60
PG03047	47.50	48.45	0.95	0.03	0.05	0.01	0.13	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology				
		Structure	19.75	19.76	Sm	General Foliation
		Structure	26.65	26.66	Sm	General Foliation
		Structure	36.50	36.51	Sm	General Foliation
		Structure	46.40	46.41	Sm	General Foliation
48.45	54.75	**6b Peridotite**				

Medium grained, dark green, weakly foliated peridotite transitional downhole of 53.10m to pyroxenite. Unit is mineralized and contains an average of 5-10% sulphides (po, minor py, minor cp) as disseminations, blebs and narrow semi-massive bands; one 9cm wide SM po band at downhole contact.

Downhole contact at 70 degrees to CA.

Magnetic susceptibility: Strongly magnetic (10-82) except for pyroxenite along donwhole contact (2.6).
Conductivity: 20-40 between 48.45m and 52.8m; 50-290 between 52.8m and 54.75m; 1400 over MS vein at downhole contact.

Interpretation: Mineralized ultramafic related to bounding gabbronorites and pyroxenites.

Mineralization	48.45	51.10	2.0%	Po	Pyrrhotite
				BB	Blebby
Mineralization	51.10	53.10	4.0%	Po	Pyrrhotite
				BB	Blebby
				Blebs and stringers	
Mineralization	53.10	54.75	12.0%	Po	Pyrrhotite
				STR	Stringers
				10-15% sulphide (8-10po, 3-4py,1cp): stringers, one 9cm wide SMS band at downhole contact	
Structure	53.30	53.31	Sm	General Foliation	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03048	48.45	49.60	1.15	0.14	0.12	0.02	1.18	0.03	0.03	0.02	0.50
PG03049	49.60	50.10	0.50	0.15	0.34	0.01	1.78	0.06	0.04	0.06	1.40
PG03051	50.10	51.10	1.00	0.24	0.09	0.02	2.46	0.03	0.04	0.01	0.25
PG03052	51.10	52.10	1.00	0.21	0.10	0.03	1.85	0.02	0.03	0.01	0.25
PG03053	52.10	53.10	1.00	0.35	0.16	0.01	3.24	0.04	0.06	0.01	0.25
PG03054	53.10	53.75	0.65	0.62	0.40	0.03	4.40	0.03	0.07	0.01	1.00
PG03055	53.75	54.75	1.00	0.47	0.24	0.04	0.38	0.06	0.04	0.01	0.80

Detailed Lithology

From	To	Lithology
54.75	86.00	**6f Norite**

Weakly to moderately foliated, medium grained, dark green pyroxenite and white and green gabbronorite as between 5.95m and 48.45m. Contains trace to several percent disseminated sulphides (py, po). Cross-cut, between 54.75m and 66m, by 2-3% mm scale white feldspar-carbonate-quartz veinlets. Pale green, bleached halos adjacent to some veins and around networks of veinlets. Foliation decreases downhole.

Magnetic susceptibility: Highly variable from < 1 to 120; body as a whole would form a mag high; 0.5-2 from 54.75-72m; 4-15 from 72m-82.7m; 30-120 from 82.7m-84.2m; 0.5-1.5 from 84.2-86m.

Conductivity: Typically non-conductive; locally conductive when tested with ohm-meter where po-bearing (eg. 70.3m & 82.9m).

Interpretation: Gabbro-norite and pyroxenite related to mineralized ultramafic.

Mineralization	67.80	71.60	1.0%	Po	Pyrrhotite
				D	Disseminated
Mineralization	67.80	71.60	1.0%	Py	Pyrite
				D	Disseminated
Mineralization	81.75	83.25	2.0%	Po	Pyrrhotite
				D	Disseminated
Mineralization	81.75	83.25	1.0%	Py	Pyrite
				D	Disseminated

Structure	59.40	59.41	Sm	General Foliation
Structure	61.40	61.41	Sm	General Foliation
Structure	67.25	67.26	Sm	General Foliation
Structure	73.45	73.46	Sm	General Foliation
Structure	81.50	81.51	Sm	General Foliation
Structure	85.10	85.11	Sm	General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03056	54.75	55.55	0.80	0.03	0.08	0.01	0.38	0.02	0.02	0.01	0.25
PG03057	67.80	68.80	1.00	0.03	0.03	0.01	2.15	0.01	0.01	0.01	0.25
PG03058	68.80	69.60	0.80	0.03	0.03	0.01	1.08	0.01	0.01	0.01	0.25
PG03059	69.60	70.60	1.00	0.03	0.05	0.01	4.09	0.03	0.02	0.01	0.25
PG03060	70.60	71.60	1.00	0.03	0.03	0.01	1.54	0.02	0.02	0.01	0.25
PG03061	81.75	82.75	1.00	0.03	0.03	0.01	1.70	0.01	0.02	0.01	0.25
PG03062	82.75	83.25	0.50	0.03	0.03	0.01	1.62	0.03	0.02	0.01	0.25

Espedalen - Analysis

Hole Number: ES2004-11

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03037	37.00	37.50	0.50	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25																
PG03038	37.50	37.80	0.30	0.35	0.23	0.02	3.06	0.01	0.03	0.07	0.25																
PG03039	37.80	38.50	0.70	0.05	0.03	0.01	0.67	0.05	0.02	0.02	0.25																
PG03040	40.55	41.55	1.00	0.25	0.16	0.02	2.62	0.15	0.02	0.06	0.25																
PG03041	41.55	42.55	1.00	0.10	0.09	0.01	0.87	0.01	0.02	0.03	0.25																
PG03042	42.55	43.55	1.00	0.07	0.05	0.01	0.64	0.01	0.03	0.05	0.25																
PG03043	43.55	44.55	1.00	0.21	0.21	0.01	1.82	0.03	0.09	0.21	0.50																
PG03044	44.55	45.55	1.00	0.23	0.17	0.01	2.00	0.02	0.03	0.04	0.25																
PG03045	45.55	46.50	0.95	0.23	0.08	0.01	1.51	0.01	0.03	0.05	0.25																
PG03046	46.50	47.50	1.00	0.30	0.24	0.01	2.28	0.01	0.02	0.03	0.60																
PG03047	47.50	48.45	0.95	0.03	0.05	0.01	0.13	0.01	0.01	0.01	0.25																
PG03048	48.45	49.60	1.15	0.14	0.12	0.02	1.18	0.02	0.03	0.03	0.50																
PG03049	49.60	50.10	0.50	0.15	0.34	0.01	1.78	0.06	0.06	0.04	1.40																
PG03051	50.10	51.10	1.00	0.24	0.09	0.02	2.46	0.01	0.03	0.04	0.25																
PG03052	51.10	52.10	1.00	0.21	0.10	0.03	1.85	0.01	0.02	0.03	0.25																
PG03053	52.10	53.10	1.00	0.35	0.16	0.01	3.24	0.01	0.04	0.06	0.25																
PG03054	53.10	53.75	0.65	0.62	0.40	0.03	4.40	0.01	0.03	0.07	1.00																
PG03055	53.75	54.75	1.00	0.47	0.24	0.04	0.38	0.01	0.06	0.04	0.80																
PG03056	54.75	55.55	0.80	0.03	0.08	0.01	0.38	0.01	0.02	0.02	0.25																
PG03057	67.80	68.80	1.00	0.03	0.03	0.01	2.15	0.01	0.01	0.01	0.25																
PG03058	68.80	69.60	0.80	0.03	0.03	0.01	1.08	0.01	0.01	0.01	0.25																
PG03059	69.60	70.60	1.00	0.03	0.05	0.01	4.09	0.01	0.03	0.02	0.25																
PG03060	70.60	71.60	1.00	0.03	0.03	0.01	1.54	0.01	0.02	0.02	0.25																
PG03061	81.75	82.75	1.00	0.03	0.03	0.01	1.70	0.01	0.01	0.02	0.25																
PG03062	82.75	83.25	0.50	0.03	0.03	0.01	1.62	0.01	0.03	0.02	0.25																

Espedalen - Conductivity

Hole Number: ES2004-11

Depth	Conductivity (Siemens)	COMMENTS
37.60	15.00	Max reading = 22
38.30	15.00	
40.60	57.00	
41.30	22.00	
44.40	66.00	
44.70	82.00	
46.40	113.00	
46.92	117.00	
47.50	66.00	
48.30	31.00	
49.50	27.00	
50.20	40.00	
51.30	20.00	
52.25	26.00	
52.90	284.00	
53.40	290.00	
53.60	140.00	
54.70	999.00	1400 siemens with conductivity meter over MS band

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-11

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
2.50	0.50	
3.50	0.15	
4.50	0.18	
5.50	16.30	
6.50	15.70	
7.50	8.40	
8.50	6.70	
9.50	10.60	
10.50	0.50	
11.50	0.56	
12.50	7.70	
13.50	16.80	
14.50	18.40	
15.50	7.10	
16.50	34.80	
17.50	8.10	
18.50	12.40	
19.50	17.70	
20.50	0.37	
21.50	3.40	
22.50	8.40	
23.50	18.90	
24.50	24.00	
25.50	19.70	
26.50	17.90	
27.50	11.20	
28.50	4.20	
29.50	1.90	
30.50	1.60	
31.50	1.90	
32.50	0.90	
33.50	2.00	
34.50	13.70	
35.50	4.70	
36.50	16.70	
37.50	2.10	
38.50	41.60	
39.50	0.65	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-11

40.50	0.50	
41.50	4.60	
42.50	15.10	
43.50	2.10	
44.50	1.20	
45.50	1.10	
46.50	6.40	
47.50	2.60	
48.50	1.27	
49.50	56.00	
50.50	40.00	
51.50	82.10	
52.50	24.10	
53.50	9.70	
54.50	2.60	
55.50	11.20	
56.50	1.10	
57.50	0.50	
58.50	0.70	
59.50	0.55	
60.50	0.38	
61.50	0.51	
62.50	1.42	
63.50	0.73	
64.50	0.79	
65.50	0.62	
66.50	0.70	
67.50	1.70	
68.50	0.85	
69.50	0.48	
70.50	1.40	
71.50	1.00	
72.50	4.50	
73.50	4.30	
74.50	5.90	
75.50	7.70	
76.50	4.60	
77.50	16.20	
78.50	33.30	
79.50	10.40	
80.50	1.63	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-11
81.50	5.90	
82.50	6.10	
83.50	97.50	
84.50	7.30	
85.50	1.33	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-11

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
2.00	5.00	15	90	N	
5.00	8.00	65	95	N	
8.00	11.00	61	95	N	
11.00	14.00	39	97	N	
14.00	17.00	71	100	N	
17.00	20.00	54	100	N	
20.00	23.00	53	100	N	
23.00	26.00	69	100	N	
26.00	29.00	67	100	N	
29.00	32.00	81	100	N	
32.00	35.00	66	100	N	
35.00	38.00	62	100	N	
38.00	41.00	82	100	N	
41.00	44.00	78	100	N	
44.00	47.00	92	100	N	
47.00	50.00	77	100	N	
50.00	53.00	78	100	N	
53.00	56.00	42	100	N	
56.00	59.00	46	100	N	
59.00	62.00	81	100	N	
62.00	65.00	80	100	N	
65.00	68.00	81	100	N	
68.00	71.00	78	100	N	
71.00	74.00	76	100	N	
74.00	77.00	90	100	N	
77.00	80.00	83	100	N	
80.00	83.00	85	100	N	
83.00	86.00	75	100	N	

Detailed Log

Hole Number: **ES2004-12** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Geo Drilling A/S
Date Started:	9/8/2004	Pulse EM Survey:	N				
Date Completed:	9/11/2004	Casing:	Left in Hole, capped			Logged by:	P. Tirschmann
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	9,325,372.15	Local Northing:	5117.23
UTM Easting:	3,731,798.97	Local Easting:	1799.12
Elevation: 967.98			

Collar Dip:	-70.00
Collar Azimuth:	225.00
Length:	136.00

Comments

Purpose: To test UTEM conductor ESP_11_10. Two modelled conductive plates tested, one of 150 siemens and the other of 70 siemens conductance.

Result: Intersected mineralized peridotite between 25.40-28.70m containing semi-massive sulphide bands, stringers and disseminations. Dominant sulphide mineral is pyrrhotite and interval between 25.4m and 27.7m is more conductive than predicted by UTEM modelling (C~200-300S). Magnetic peridotite containing zones of weak disseminated sulphides intersected between 47.00-87.05m.

Assays: 0.48% Ni, 0.43% Cu, 0.04% Co / 1.20m (25.40-26.60m) (best)

Lithological interpretation: Intersected thick sequence of alternating norites and ultramafic rocks. Majority of norites appear to be related to the ultramafic rocks.

Detailed Lithology

From	To		Lithology
0.00	1.50	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
1.50	25.40	**6f Norite** Foliated, fine grained grey norite comprised of 60-70% plagioclase and 30-40% mafic minerals (pale green amphibole + minor chlorite). Fine grain size maybe due in part to tectonism. Strongly sheared to mylonitized between 1.5m and 3m; possible pseudotachylite at 8.4m. 1-3% mm scale dark green serpentine veinlets. Locally contains cm to dm scale bands of medium grained, grey, siliceous, garent-bearing rock which could either be silicified norite (Heim's hybrid rocks"?) or inclusions of metasediment (eg. 5.9m, 6.4m, 6.6m, 7.15m). Magnetic Susceptibility: Typically < 0.5 Conductivity: Non-conductive Interpretation: Norite related to ultramafic rocks but finer grained than in hole ES2004-11. **Minor Interval** 14.80 15.05 **5b Pelitic Metasediments** Interval consisting of alternating fine grained, grey siliceous bands and fine to medium grained, pink garnet-rich bands. Banding on mm to cm scale. Uphole contact sharp at 55 degrees to CA; downhole contact gradational over 25cm where siliceous unit is intermixed with norite. Interpretation: Metasedimentary raft or Heim's "hybrid rocks". **Mineralization** 24.50 25.40 0.5% Po Pyrrhotite F Fracture-Controlled **Structure** 2.40 2.41 Sm General Foliation **Structure** 11.60 11.61 Sm General Foliation **Structure** 24.55 24.56 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03063	24.50	25.40	0.90	0.03	0.03	0.01	0.35	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
25.40	28.70	**6b Peridotite** Foliated, medium grained dark grey to green mineralized ultramafic containing SMS bands, stringers and disseminations decreasing in abundance downhole. Uphole contact sharp at 30 degrees to CA; 5cm wide zone of chlorite schist at uphole contact; downhole contact gradational over several cms. Magnetic susceptibility: 0.35-5.2 Conductivity: 15-790, averages approx. 200 siemens

Mineralization	25.40	26.60	2.0%	Cpy	Chalcopyrite
				D	Disseminated
				Cp locally intermixed with SM po	
Mineralization	25.40	26.60	25.0%	Po	Pyrrhotite
				SM	Semi-Massive
				SM po bands, stringers and net-textures	
Mineralization	26.60	27.70	8.0%	Po	Pyrrhotite
				F	Fracture-Controlled
				5-10% po remobilized along fractures	
Mineralization	26.60	27.70	1.0%	Cpy	Chalcopyrite
				BB	Blebby
				Intermixed with po	
Mineralization	27.70	28.70	1.0%	Po	Pyrrhotite
				F	Fracture-Controlled
				Po along fractures and rare disseminatior	
Structure	26.20	26.21	Sm	General Foliation	
Structure	27.70	27.71	Sm	General Foliation	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03064	25.40	26.60	1.20	0.48	0.43	0.04	7.19	0.05	0.05	0.01	0.90
PG03065	26.60	27.70	1.10	0.33	0.20	0.03	4.52	0.02	0.10	0.01	0.25
PG03066	27.70	28.70	1.00	0.08	0.03	0.01	0.78	0.01	0.03	0.01	0.25

Detailed Lithology

From	To	Lithology
28.70	47.00	**6f Norite** Fine to medium grained grey norite as 1.5-25.4m. Ranges from massive to foliated and is locally sheared (36.55m, 37.6m, 39.4m, 42.55m, 44.65-44.80m). Shearing typically consists of 1-3cm wide zones of mylonitization. Pseudotachylite at 41.45m. 10cm wide zone of shearing at 36.55m containing very fine grained laminated semi-massive pyrrhotite. 1-3% serpentine along fractures. trace quartz-carbonate fracture fillings. Magnetic Susceptibility: Typically < 0.5 Conductivity: Non-conductive Interpretation: Norite related to ultramafic rocks. **Mineralization** 36.40 36.70 20.0% Po Pyrrhotite SM Semi-Massive One 5 cm wide band of laminated SMS p **Mineralization** 41.80 42.55 2.0% Po Pyrrhotite F Fracture-Controlled 2-3% po along fractures and disseminate **Structure** 36.40 36.41 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03067	28.70	29.70	1.00	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25
PG03068	35.80	36.40	0.60	0.03	0.03	0.01	0.41	0.01	0.01	0.01	0.25
PG03069	36.40	36.70	0.30	0.03	0.07	0.01	2.39	0.01	0.01	0.01	0.25
PG03070	36.70	37.70	1.00	0.03	0.03	0.01	0.39	0.01	0.01	0.01	0.25
PG03071	41.80	42.55	0.75	0.08	0.08	0.01	1.30	0.01	0.01	0.01	0.25
PG03072	46.00	47.00	1.00	0.14	0.07	0.01	1.03	0.02	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
47.00	87.05	**6b Peridotite** Foliated, medium grained mottled, strongly magnetic oikocrystic peridotite. Typically consists of 60-75% dark grey medium grained olivine-rich (?) groundmass. 25-40% 0.5-2.5cm light grey pyroxene (now altered to amphibole) oikocrysts and 3% very fine grained magnetite. Locally mineralized containing trace to 10% disseminated pyrrhotite. Ultramafic is pyroxenitic adjacent to uphole contact and to a depth of 50.25m. Uphole contact is gradational over several cms. Downhole contact is sharp at 80 degrees to CA and UM appears to be cross-cut by a younger leuco-norite. Magnetic susceptibility: 47-50.25m: 1-16; 50.25-87.05m: typically between 20 and 50, locally up to 97. Conductivity: Non-conductive except where po-bearing; weakly to strongly conductive over po mineralization when tested with ohm-meter; 30-40 siemens between 51m and 54m. Interpetation: Large magnetic UM body with zones of weak disseminated mineralization.

Minor Interval

79.60	80.10	**6f Norite** Fine grained, light grey, altered (?) norite containing up to 10% garnet flattened along foliation planes. Block in ultramafic?

Mineralization	47.00	51.00	2.0%	Po	Pyrrhotite
				D	Disseminated
				1-3% disseminated po	
Mineralization	51.00	54.00	5.0%	Po	Pyrrhotite
				D	Disseminated
				3-7% disseminated po	
Mineralization	56.00	56.50	3.0%	Po	Pyrrhotite
				D	Disseminated
Mineralization	77.70	78.00	5.0%	Po	Pyrrhotite
				D	Disseminated
Mineralization	86.50	87.05	5.0%	Po	Pyrrhotite
				D	Disseminated
				5-7% disseminated po	

Structure	47.50	47.51	Sm	General Foliation
Structure	48.50	48.51	Sm	General Foliation
Structure	65.60	65.61	Sm	General Foliation
Structure	71.60	71.61	Sm	General Foliation
Structure	76.70	76.71	Sm	General Foliation
Structure	84.50	84.51	Sm	General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03073	47.00	48.00	1.00	0.18	0.17	0.01	1.46	0.03	0.01	0.01	0.25
PG03074	48.00	49.00	1.00	0.25	0.12	0.02	2.16	0.03	0.02	0.01	0.25
PG03076	49.00	50.00	1.00	0.21	0.08	0.03	1.65	0.02	0.02	0.01	0.25
PG03077	50.00	51.00	1.00	0.20	0.07	0.01	1.81	0.02	0.01	0.01	0.25
PG03078	51.00	52.00	1.00	0.32	0.13	0.04	2.75	0.03	0.03	0.01	0.25
PG03079	52.00	53.00	1.00	0.23	0.13	0.02	1.95	0.03	0.02	0.02	0.25
PG03080	53.00	54.00	1.00	0.23	0.11	0.01	1.93	0.03	0.01	0.01	0.25
PG03081	54.00	55.00	1.00	0.11	0.03	0.02	0.17	0.01	0.01	0.01	0.25
PG03082	55.00	56.00	1.00	0.11	0.03	0.01	0.13	0.01	0.01	0.01	0.25
PG03083	56.00	56.50	0.50	0.16	0.03	0.01	0.96	0.02	0.01	0.01	0.25
PG03084	56.50	57.00	0.50	0.11	0.03	0.02	0.14	0.01	0.01	0.01	0.25
PG03085	77.20	77.70	0.50	0.11	0.03	0.01	0.08	0.01	0.01	0.01	0.25
PG03086	77.70	78.00	0.30	0.29	0.09	0.03	1.16	0.01	0.01	0.01	0.25
PG03087	78.00	78.50	0.50	0.13	0.03	0.01	0.10	0.02	0.01	0.01	0.25
PG03088	86.00	86.50	0.50	0.14	0.03	0.02	0.16	0.01	0.01	0.01	0.25
PG03089	86.50	87.05	0.55	0.29	0.08	0.03	2.14	0.03	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
87.05	90.25	**7a Gabbronorite** Medium grained, massive to weakly foliated, light grey leuco-gabbro. Consists of 65-70% plagioclase, 30-35% pyroxene and 1-2% chlorite. Very fine grained at uphole contact; downhole contact sharp and possibly sheared at 70 degrees to CA. Magnetic susceptibility: 0.1 Conductivity: non-conductive Interpretation: Leuconorite younger and cross-cutting ultramafic rocks. Heim's series "3" rocks?
90.25	136.00	**6d Pyroxenite** Medium grained dark green ultramafic ranging from oikocrystic peridotite to pyroxenite. Similar to 47.00-87.05m but with increasing pyroxene content downhole. Locally contains up to 5% disseminated po. 90.25-93.40m: Fine grained, pale grey, bleached/altered pyroxenite forming contact zone with uphole norite. Mag susceptibility = <1 93.40-99.40m: Oikocrystic peridotite as uphole. Mag susceptibility = 30-80 99.40-136m: Pyroxenite. Magnetic susceptibility highly variable from <1-50; averages 10-15. Non- conductive. **Minor Interval** 118.90 119.50 **6f Norite** **Mineralization** 109.90 110.40 5.0% Po Pyrrhotite CO Coated **Structure** 96.70 96.71 Sm General Foliation **Structure** 104.60 104.61 Sm General Foliation **Structure** 115.70 115.71 Sm General Foliation **Structure** 125.60 125.61 Sm General Foliation **Structure** 131.60 131.61 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03090	87.05	87.60	0.55	0.06	0.07	0.01	0.07	0.02	0.01	0.02	0.25
PG03091	109.30	109.90	0.60	0.07	0.03	0.02	0.10	0.01	0.01	0.01	0.25
PG03092	109.90	110.40	0.50	0.30	0.15	0.02	1.42	0.04	0.02	0.03	0.25
PG03093	110.40	111.00	0.60	0.08	0.03	0.03	0.09	0.03	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2004-12

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03063	24.50	25.40	0.90	0.03	0.03	0.01	0.35	0.01	0.01	0.01	0.25																
PG03064	25.40	26.60	1.20	0.48	0.43	0.04	7.19	0.01	0.05	0.05	0.90																
PG03065	26.60	27.70	1.10	0.33	0.20	0.03	4.52	0.01	0.02	0.10	0.25																
PG03066	27.70	28.70	1.00	0.08	0.03	0.01	0.78	0.01	0.01	0.03	0.25																
PG03067	28.70	29.70	1.00	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25																
PG03068	35.80	36.40	0.60	0.03	0.03	0.01	0.41	0.01	0.01	0.01	0.25																
PG03069	36.40	36.70	0.30	0.03	0.07	0.01	2.39	0.01	0.01	0.01	0.25																
PG03070	36.70	37.70	1.00	0.03	0.03	0.01	0.39	0.01	0.01	0.01	0.25																
PG03071	41.80	42.55	0.75	0.08	0.08	0.01	1.30	0.01	0.01	0.01	0.25																
PG03072	46.00	47.00	1.00	0.14	0.07	0.01	1.03	0.01	0.02	0.01	0.25																
PG03073	47.00	48.00	1.00	0.18	0.17	0.01	1.46	0.01	0.03	0.01	0.25																
PG03074	48.00	49.00	1.00	0.25	0.12	0.02	2.16	0.01	0.03	0.02	0.25																
PG03076	49.00	50.00	1.00	0.21	0.08	0.03	1.65	0.01	0.02	0.02	0.25																
PG03077	50.00	51.00	1.00	0.20	0.07	0.01	1.81	0.01	0.02	0.01	0.25																
PG03078	51.00	52.00	1.00	0.32	0.13	0.04	2.75	0.01	0.03	0.03	0.25																
PG03079	52.00	53.00	1.00	0.23	0.13	0.02	1.95	0.02	0.03	0.02	0.25																
PG03080	53.00	54.00	1.00	0.23	0.11	0.01	1.93	0.01	0.03	0.01	0.25																
PG03081	54.00	55.00	1.00	0.11	0.03	0.02	0.17	0.01	0.01	0.01	0.25																
PG03082	55.00	56.00	1.00	0.11	0.03	0.01	0.13	0.01	0.01	0.01	0.25																
PG03083	56.00	56.50	0.50	0.16	0.03	0.01	0.96	0.01	0.02	0.01	0.25																
PG03084	56.50	57.00	0.50	0.11	0.03	0.02	0.14	0.01	0.01	0.01	0.25																
PG03085	77.20	77.70	0.50	0.11	0.03	0.01	0.08	0.01	0.01	0.01	0.25																
PG03086	77.70	78.00	0.30	0.29	0.09	0.03	1.16	0.01	0.01	0.01	0.25																
PG03087	78.00	78.50	0.50	0.13	0.03	0.01	0.10	0.01	0.02	0.01	0.25																
PG03088	86.00	86.50	0.50	0.14	0.03	0.02	0.16	0.01	0.01	0.01	0.25																
PG03089	86.50	87.05	0.55	0.29	0.08	0.03	2.14	0.01	0.03	0.01	0.25																
PG03090	87.05	87.60	0.55	0.06	0.07	0.01	0.07	0.02	0.02	0.01	0.25																
PG03091	109.30	109.90	0.60	0.07	0.03	0.02	0.10	0.01	0.01	0.01	0.25																
PG03092	109.90	110.40	0.50	0.30	0.15	0.02	1.42	0.03	0.04	0.02	0.25																

Espedalen - Analysis

Hole Number: ES2004-12

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03093	110.40	111.00	0.60	0.08	0.03	0.03	0.09	0.01	0.03	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2004-12

Depth	Conductivity (Siemens)	COMMENTS
25.40	15.00	
25.80	199.00	
25.95	790.00	
26.00	390.00	
26.30	313.00	
26.40	794.00	
26.65	84.00	
27.00	290.00	
27.10	222.00	
27.50	13.00	
27.90	17.00	
36.55	59.00	
51.80	37.00	
52.80	39.00	
53.40	37.00	
86.60	30.00	
97.85	29.00	
110.30	28.00	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-12

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
1.50	0.14	
2.50	0.56	
3.50	0.10	
4.50	0.28	
5.50	0.35	
6.50	0.37	
7.50	0.70	
8.50	0.04	
9.50	0.24	
10.50	0.20	
11.50	0.34	
12.50	0.23	
13.50	0.25	
14.50	0.26	
15.50	0.16	
16.50	0.25	
17.50	0.20	
18.50	0.20	
19.50	0.14	
20.50	0.18	
21.50	0.20	
22.50	0.28	
23.50	0.25	
24.50	0.30	
25.50	5.20	
26.50	1.00	
27.50	0.35	
28.50	0.71	
29.50	0.16	
30.50	0.52	
31.50	0.40	
32.50	0.27	
33.50	0.26	
34.50	0.14	
35.50	0.16	
36.50	1.85	
37.50	0.22	
38.50	0.11	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-12
39.50	0.10	
40.50	0.22	
41.50	0.46	
42.50	1.90	
43.50	0.09	
44.50	0.32	
45.50	0.38	
46.50	1.10	
47.50	16.10	
48.50	1.27	
49.50	9.00	
50.50	55.30	
51.50	97.00	
52.50	76.00	
53.50	54.00	
54.50	44.00	
55.50	35.00	
56.50	31.00	
57.50	48.00	
58.50	35.00	
59.50	74.00	
60.50	29.00	
61.50	54.00	
62.50	19.00	
63.50	36.00	
64.50	11.00	
65.50	29.00	
66.50	16.00	
67.50	27.00	
68.50	29.00	
69.50	46.00	
70.50	14.00	
71.50	52.00	
72.50	58.00	
73.50	26.00	
74.50	22.00	
75.50	23.00	
76.50	50.00	
77.50	41.00	
78.50	43.00	
79.50	16.00	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-12
80.50	17.00	
81.50	69.00	
82.50	86.00	
83.50	35.00	
84.50	3.20	
85.50	72.00	
86.50	14.00	
87.50	0.10	
88.50	0.15	
89.50	0.01	
90.50	0.20	
91.50	0.10	
92.50	0.62	
93.50	59.00	
94.50	76.00	
95.50	37.00	
96.50	31.00	
97.50	31.00	
98.50	68.00	
99.50	19.00	
100.50	3.50	
101.50	0.12	
102.50	0.16	
103.50	8.60	
104.50	19.00	
105.50	17.00	
106.50	16.00	
107.50	3.30	
108.50	16.00	
109.50	26.00	
110.50	15.00	
111.50	66.00	
112.50	3.70	
113.50	22.00	
114.50	33.00	
115.50	26.00	
116.50	12.00	
117.50	0.04	
118.50	25.00	
119.50	0.11	
120.50	11.00	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-12
121.50	13.00	
122.50	4.80	
123.50	9.00	
124.50	13.00	
125.50	30.00	
126.50	24.00	
127.50	51.00	
128.50	39.00	
129.50	38.00	
130.50	6.20	
131.50	12.20	
132.50	9.60	
133.50	10.00	
134.50	17.00	
135.50	9.00	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-12

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
1.50	3.00	7	100	N	
3.00	6.00	42	100	N	
6.00	9.00	39	100	N	
9.00	12.00	44	100	N	
12.00	15.00	17	100	N	
15.00	18.00	59	100	N	
18.00	21.00	71	100	N	
21.00	24.00	44	100	N	
24.00	27.00	63	100	N	
27.00	30.00	53	100	N	
30.00	33.00	60	100	N	
33.00	36.00	28	100	N	
36.00	39.00	38	100	N	
39.00	42.00	51	100	N	
42.00	45.00	60	100	N	
45.00	48.00	70	100	N	
48.00	51.00	82	100	N	
51.00	54.00	77	100	N	
54.00	57.00	80	100	N	
57.00	60.00	79	100	N	
60.00	63.00	78	100	N	
63.00	66.00	89	100	N	
66.00	69.00	93	100	N	
69.00	72.00	90	100	N	
72.00	75.00	71	100	N	
75.00	78.00	86	100	N	
78.00	81.00	67	100	N	
81.00	84.00	67	100	N	
84.00	87.00	84	100	N	
87.00	90.00	78	100	N	
90.00	93.00	76	100	N	
93.00	96.00	86	100	N	
96.00	99.00	74	100	N	
99.00	102.00	79	100	N	
102.00	105.00	77	100	N	
105.00	108.00	72	100	N	
108.00	111.00	74	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-12

111.00	114.00	72	100	N	
114.00	117.00	92	100	N	
117.00	120.00	84	100	N	
120.00	123.00	53	100	N	
123.00	126.00	86	100	N	
126.00	129.00	75	100	N	
129.00	132.00	97	100	N	
132.00	135.00	88	100	N	
135.00	136.00	31	100	N	

Detailed Log

Hole Number: **ES2004-13**

Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Geo Drilling A/S
		Pulse EM Survey:	N				
Date Started:	9/11/2004	Casing:	Left in Hole, capped				
Date Completed:	9/13/2004	Location:	Surface			Logged by:	P.Tirschmann

UTM WGS 84 Coord		Local Coord	
UTM Northing:	9,325,372.15	Local Northing:	5259.52
UTM Easting:	3,731,798.97	Local Easting:	2400.91
Elevation:	967.98		

Collar Dip:	-79.00
Collar Azimuth:	51.00
Length:	97.60

Comments

Purpose: To test UTEM conductor ESP_11_11. Two conductive plates modelled, one with conductance of 100 siemens and the other of 50 siemens.

Result: Peridotite intersected between 2.15m and 31.30m locally contains trace to 3% disseminated pyrrhotite but no obvious conductor was intersected.

Assays: All nickel values <0.10%.

Lithological interpretation: Pyroxenitic to peridotitic bodies intruding anorthositic country rocks, in turn cross-cut by younger gabbronorites.

Detailed Lithology

From	To		Lithology
0.00	2.15	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
2.15	31.30	**6b Peridotite** Weakly to moderately foliated, medium grained, dark green, strongly magnetic oikocrystic peridotite. Typically consists of 80-85% dark grey medium grained olivine-rich groundmass, 10-20% 0.5-2.5cm light grey pyroxene (now altered to amphibole) oikocrysts and 3% very fine grained magnetite. Weak (trace -3%) disseminated pyrrhotite mineralization locally. Very fine grained pyrrhotite laminae in sheared UM between 31.1-31.2m. Sheared over a 40cm interval adjacent to sharp downhole contact with norite; downhole contact at 57 degrees to CA. Magnetic susceptibility: 50-100 Conductivity: Non-conductive Interpretation: Oikocrystic ultramafic similar to that seen in ES2004-12 between 47m and 87.05m. **Mineralization** 30.80 31.30 5.0% Po Pyrrhotite 5% vfg po laminations in sheared mylonitized UM **Structure** 7.30 7.31 Sm General Foliation **Structure** 19.20 19.21 Sm General Foliation **Structure** 25.60 25.61 Sm General Foliation
31.30	43.80	**7a Gabbronorite** Medium grained, well foliated (sheared?), light grey leuco-gabbro. Consists of 70-75% plagioclase, 25-30% pyroxene and 1-2% chlorite. Several percent serpentinized fractures and slips. Downhole contact unchilled, sharp, but irregular. Magnetic susceptibility: < 1 Conductivity: non-conductive Interpretation: Leuconorite as seen in ES2004-12 between 87.05 and 90.25m, but foliated. **Mineralization** 39.90 40.75 3.0% Po Pyrrhotite D Disseminated 3% disseminated, fracture-controlled and blebby po in sheared norite. **Structure** 34.50 34.51 Sm General Foliation **Structure** 39.60 39.61 Sm General Foliation **Structure** 42.30 42.31 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03097	14.25	15.25	1.00	0.07	0.03	0.01	0.24	0.01	0.01	0.01	0.25
PG03098	21.85	23.00	1.15	0.08	0.03	0.01	0.21	0.01	0.01	0.01	0.25
PG03099	25.50	26.50	1.00	0.08	0.03	0.02	0.26	0.01	0.01	0.01	0.25
PG03101	26.50	27.25	0.75	0.08	0.03	0.02	0.22	0.01	0.01	0.01	0.25
PG03102	30.00	30.80	0.80	0.07	0.03	0.01	0.12	0.01	0.01	0.01	0.25
PG03103	30.80	31.30	0.50	0.08	0.03	0.01	1.00	0.06	0.03	0.01	0.25
PG03104	39.90	40.75	0.85	0.03	0.03	0.03	2.18	0.03	0.01	0.01	0.25

Detailed Lithology			Assay Data											
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
43.80	70.10	**6d Pyroxenite** Fine grained dark green pyroxenite with inhomogenous appearance due to presence of 5-10% white and green cm to dm scale anorthositic inclusions and schlieren-like bands. Foliation evident in anorthositic intervals. Between 66.5m and 67.8m pyroxenite contains cm scale inclusions of dark grey, aphanitic, mafic rock, some of which contain trace pyrrhotite along fractures. Reaction rims evident on some inclusions. Downhole contact with sheared anorthositic rocks sharp and estimated at 60 degrees to CA. Magnetic susceptibility: Typically between 0.5 and 3.5 Conductivity: Non-conductive Interpretation: Pyroxenite body intruding older anorthositic rocks.												
70.10	87.70	**4 Anorthosite / Anorthositic Gabbro** Inhomogenous interval of tectonized, mottled white and green, medium to coarse grained anorthositic gabbro. Consists of 65-85% plagioclase and 15-35% pyroxene. Unit is sheared and contains 3-10% serpentine and chlorite fracture fillings and veinlets which locally disrupt and brecciate the host rock. Trace po along fractures in ultramafic dykelet at 71.25m. Rare trace po, disseminated and along fractures in anorthositic gabbro. Magnetic susceptibility: <1 Conductivity: Non-conductive **Mineralization** 81.00 81.40 4.0% Po Pyrrhotite STR Stringers One 1-5mm wide stringer of po, minor py sub-parallel to CA **Structure** 72.65 72.66 Sm General Foliation **Structure** 78.10 78.11 Sm General Foliation **Structure** 83.60 83.61 Sm General Foliation **Structure** 87.55 87.56 Sm General Foliation	PG03105	81.00	81.40	0.40	0.03	0.03	0.01	6.01	0.01	0.01	0.01	0.25
87.70	97.60	**6d Pyroxenite** Inhomogeneous unit ranging from fine grained dark green pyroxenite to fine grained green and white melanogabbro. Foliation evident in melanogabbro. Broken core at uphole contact with sheared anorthositic rocks but contact is sharp and estimated at 50 degrees to CA. Magnetic susceptibility: 0.3-3 Conductivity: Non-conductive Interpretation: Pyroxenitic to melanogabbroic body intruding older anorthositic rocks. **Structure** 88.65 88.66 Sm General Foliation **Structure** 90.60 90.61 Sm General Foliation **Structure** 94.50 94.51 Sm General Foliation **Structure** 97.50 97.51 Sm General Foliation												

Espedalen - Analysis

Hole Number: ES2004-13

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03097	14.25	15.25	1.00	0.07	0.03	0.01	0.24	0.01	0.01	0.01	0.25																
PG03098	21.85	23.00	1.15	0.08	0.03	0.01	0.21	0.01	0.01	0.01	0.25																
PG03099	25.50	26.50	1.00	0.08	0.03	0.02	0.26	0.01	0.01	0.01	0.25																
PG03101	26.50	27.25	0.75	0.08	0.03	0.02	0.22	0.01	0.01	0.01	0.25																
PG03102	30.00	30.80	0.80	0.07	0.03	0.01	0.12	0.01	0.01	0.01	0.25																
PG03103	30.80	31.30	0.50	0.08	0.03	0.01	1.00	0.01	0.06	0.03	0.25																
PG03104	39.90	40.75	0.85	0.03	0.03	0.03	2.18	0.01	0.03	0.01	0.25																
PG03105	81.00	81.40	0.40	0.03	0.03	0.01	6.01	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2004-13

Depth	Conductivity (Siemens)	COMMENTS
31.00	24.00	very fine grained po laminae

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-13

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
2.50	55.30	
3.50	83.20	
4.50	90.40	
5.50	79.20	
6.50	111.00	
7.50	102.00	
8.50	89.70	
9.50	70.80	
10.50	87.30	
11.50	94.50	
12.50	100.00	
13.50	112.00	
14.50	90.00	
15.50	73.20	
16.50	91.10	
17.50	121.00	
18.50	98.20	
19.50	87.30	
20.50	79.40	
21.50	101.00	
22.50	107.00	
23.50	108.00	
24.50	97.70	
25.50	102.00	
26.50	107.00	
27.50	108.00	
28.50	101.00	
29.50	92.30	
30.50	62.70	
31.50	4.51	
32.50	0.48	
33.50	0.39	
34.50	0.33	
35.50	0.27	
36.50	0.34	
37.50	0.33	
38.50	0.31	
39.50	0.42	

Espedalen - Magnetic Susceptibility	Hole Number: ES2004-13

40.50	0.98	
41.50	0.27	
42.50	0.27	
43.50	0.49	
44.50	0.69	
45.50	1.25	
46.50	0.82	
47.50	0.84	
48.50	3.40	
49.50	0.78	
50.50	2.95	
51.50	1.36	
52.50	0.82	
53.50	0.30	
54.50	3.52	
55.50	0.57	
56.50	0.76	
57.50	0.62	
58.50	1.25	
59.50	0.88	
60.50	0.82	
61.50	3.47	
62.50	1.82	
63.50	2.10	
64.50	2.12	
65.50	1.03	
66.50	7.86	
67.50	1.56	
68.50	6.53	
69.50	11.20	
70.50	0.24	
71.50	0.27	
72.50	0.37	
73.50	0.19	
74.50	0.49	
75.50	1.89	
76.50	0.66	
77.50	0.59	
78.50	0.42	
79.50	0.49	
80.50	0.34	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-13
81.50	0.57	
82.50	0.21	
83.50	0.24	
84.50	0.26	
85.50	0.15	
86.50	0.36	
87.50	0.36	
88.50	2.15	
89.50	1.71	
90.50	0.68	
91.50	2.99	
92.50	1.78	
93.50	1.15	
94.50	0.85	
95.50	0.43	
96.50	0.34	
97.50	0.43	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-13

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
2.15	5.00	28	100	N	
5.00	8.00	41	100	N	
8.00	11.00	46	100	N	
11.00	14.00	59	100	N	
14.00	17.00	71	100	N	
17.00	20.00	64	100	N	
20.00	23.00	27	100	N	
23.00	26.00	59	100	N	
26.00	29.00	90	100	N	
29.00	32.00	30	100	N	
32.00	35.00	62	100	N	
35.00	38.00	40	100	N	
38.00	41.00	56	100	N	
41.00	44.00	57	100	N	
44.00	47.00	35	100	N	
47.00	50.00	55	100	N	
50.00	53.00	49	100	N	
53.00	56.00	56	100	N	
56.00	59.00	63	100	N	
59.00	62.00	74	100	N	
62.00	65.00	79	100	N	
65.00	68.00	36	100	N	
68.00	71.00	48	100	N	
71.00	74.00	37	100	N	
74.00	77.00	20	100	N	
77.00	80.00	40	100	N	
80.00	83.00	78	98	N	
83.00	86.00	75	100	N	
86.00	89.00	65	100	N	
89.00	92.00	85	100	N	
92.00	95.00	58	100	N	
95.00	97.60	48	100	N	

Detailed Log

Hole Number: **ES2004-14** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Geo Drilling A/S
Date Started:	9/15/2004	Pulse EM Survey:	N			Logged by:	P. Tirschmann
Date Completed:	9/19/2004	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,809,492.84	Local Northing:	6458.42
UTM Easting:	532,762.13	Local Easting:	3601.03
Elevation:	1284.42		

Collar Dip:	-54.00
Collar Azimuth:	231.00
Length:	131.45

Comments

Purpose: To test UTEM conductor ESP_10_08. Conductivity = 400 siemens.

Result: Mineralized pyroxenite was intersected from 50.85m-81.60m, which contains an average of 2-10% pyrrhotite with trace pyrite and chalcopyrite. Sulphides typically occur as blebs and disseminations. Two narrow intervals containing net-textured to semi-massive sulphides from 79.60-80.60m and 81.15-81.60m.

Assays: 0.66% Ni, 0.37% Cu, 0.06% Co / 1.00m (79.60-80.60m)
0.99% Ni, 0.10% Cu, 0.08% Co / 0.45m (81.15-81.60m)

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Package of norites and pyroxenites which have intruded what appear to be siliceous metasediments. Mafic/ultramafic rocks locally cross-cut by distinctive magnetic mafic alkaline (?) dykes.

Detailed Lithology

From	To		Lithology
0.00	2.35	**C**	**Casing** CASING

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
2.35	19.95	**6f Norite** Medium grained, greyish to brownish green, equigranular norite. Consists of 75-85% pyroxene, 15-25% plagioclase, 3-5% biotite ± chlorite and trace pyrrhotite. Pyroxene is brownish in color and appears altered. Norite is in sharp contact with one interval of pyroxenite (see minor interval) and is also gradational to pyroxenite adjacent to downhole contact with ultramafic dyke (18.6-19.95m). Conductivity: Non-conductive Magnetic susceptibility: 0.3-1.5 NOTE: Whole rock analysis of dyke rocks **Minor Interval** 9.45 14.00 **6d Pyroxenite** Medium grained, dark green pyroxenite locally containing trace to 1% pyrrhotite blebs and disseminations. Uphole contact sharp at 25-30° to CA; downhole contact sharp at 75-85° to CA. Non-conductive. Magnetic susceptibility: 3-12, avg = 5												
19.95	22.30	**8f Aphanitic UM Dyke** Dark grey to black, magnetic aphanitic ultramafic (?) dyke. No visible leucocratic minerals. Contains 10-20% 1-3mm white diffuse rounded patches for several cms adjacent to both uphole and downhole contacts (alteration mineral or result of chilling?). Up hole contact is sharp and slightly irregular at 65° to CA; donwhole contact is sharp and chilled at 65° to CA. Clearly cross-cuts and postdates host norite. Conductivity: Non-conductive Magnetic Susceptibility: 10-32 NOTE: A whole rock analysis from a a similar dyke in hole ES2004-16 yielded a composition similar to an alkaline olivine basalt suggesting this these dykes are mafic (versus ultramafic) with alkaline affinities.												

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
22.30	50.85	**6f Norite** As 2.35-19.95m. Medium grained, greyish to brownish green, equigranular norite. Consists of 75-85% pyroxene, 15-25% plagioclase and 3-5% biotite ± chlorite. Pyroxene is brownish in color and appears altered. Locally norite contains plagioclase rich bands, patches and veinlets which may represent partially digested or remobilized anorthositic material. Norite is in sharp to gradational contact with narrow intervals of pyroxenite (see minor intervals). Downhole contact with larger pyroxenite unit sharp and at 70° to CA. Conductivity: Non-conductive Magnetic susceptibility: 0.2-2, typically < 1. Interpretation: Part of same norite body as uphole, cross-cut by the distinctive aphanitic UM dyke. Likely magmatically related to UM units intersected in hole. **Minor Interval** 32.50 33.70 **6d Pyroxenite** Fine to medium grained, dark green pyroxenite. Uphole contact appears abrupt but not sharp; downhole contact is sharp and at 75° to CA. Magnetic susceptibility increases downhole from <1 to 25.												

Detailed Lithology

From	To	Lithology
50.85	81.60	**6d Pyroxenite** Medium grained, light to dark green pyroxenite consisting of 80-95% altered (?) pyroxene, 1-15% fine grained chlorite and trace to 10% pyrrhotite. Pyrrhotite occurs as blebs and disseminations and is moderately magnetic. Rare trace chalcopyrite intermixed with pyrrhotite. Ultramafic contains several cm to decimeter scale inclusions of medium to coarse grained anorthosite and anorthositic gabbro (eg. 53.55-53.8m, 54.60m, 78.4-79.6m). Downhole contact interpreted at last occurrence of UM-hosted semi-massive sulphide. Mineralized contact zone contains several 5-8cm wide zones of fine grained, highly siliceous rock as well as one interval of fine grained gabbro-norite between 80.5 and 81m. Conductivity: Conductive where po mineralization is interconnected. Magnetic susceptibility: typicall between 1 and 10; locally up to 33. **Minor Interval** 72.90 73.00 **8f Aphanitic UM Dyke** Similar to 19.95-22.30m. Uphole contact @ 50° to CA; downhole contact at 55° to CA. **Minor Interval** 73.05 73.50 **8f Aphanitic UM Dyke** Strongly magnetic. Aphanitic black UM dyke as previously but containing mm to cm scale clasts of pyroxenite and mineralized pyroxenite. Uphole contact at 30° to CA; downhole contact @ 65-70° to CA. Conductivity: Magnetic Susceptibility: 24-30 Interpretation: Clearly post-dates and brecciates mineralized ultramafic. Magmatic relationship to pyroxenite unclear. **Minor Interval** 78.40 79.60 **4 Anorthosite / Anorthositic Gabbro** Very coarse grained, mottled white and green anorthositic block in ultramafic. Unmineralized. **Mineralization** 60.10 61.00 2.0% Po Pyrrhotite D Disseminated **Mineralization** 61.00 61.75 0.5% Po Pyrrhotite D Disseminated Trace po, poorly mineralized due to presence of anorthositic bands **Mineralization** 61.75 72.50 3.0% Po Pyrrhotite BB Blebby 1-5% pyrrhotite blebs and disseminations

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03114	60.10	61.00	0.90	0.13	0.07	0.01	0.97	0.02	0.01	0.02	0.25
PG03115	61.00	61.75	0.75	0.11	0.11	0.01	0.97	0.01	0.01	0.03	0.25
PG03116	61.75	63.00	1.25	0.20	0.07	0.01	1.63	0.01	0.01	0.01	0.25
PG03117	63.00	64.00	1.00	0.16	0.11	0.03	1.46	0.03	0.01	0.03	0.60
PG03118	64.00	65.00	1.00	0.19	0.16	0.02	2.01	0.02	0.01	0.04	0.25
PG03119	65.00	66.00	1.00	0.14	0.06	0.03	1.10	0.01	0.01	0.03	0.25
PG03120	66.00	67.00	1.00	0.17	0.06	0.03	1.63	0.01	0.01	0.08	0.70
PG03121	67.00	68.00	1.00	0.19	0.07	0.02	2.14	0.01	0.01	0.02	0.25
PG03122	68.00	69.00	1.00	0.16	0.08	0.02	1.68	0.02	0.01	0.04	0.25
PG03123	69.00	70.00	1.00	0.16	0.07	0.03	1.83	0.01	0.01	0.02	0.25
PG03124	70.00	71.00	1.00	0.12	0.06	0.01	1.25	0.02	0.01	0.01	0.25
PG03126	71.00	72.00	1.00	0.13	0.03	0.01	1.21	0.01	0.01	0.01	0.25
PG03127	72.00	72.50	0.50	0.13	0.03	0.03	1.47	0.02	0.01	0.03	0.25
PG03128	72.50	73.50	1.00	0.05	0.03	0.01	0.77	0.01	0.01	0.03	0.25
PG03129	73.50	74.50	1.00	0.14	0.10	0.01	1.92	0.02	0.01	0.09	0.25
PG03130	74.50	75.50	1.00	0.11	0.03	0.01	1.38	0.01	0.01	0.02	0.25
PG03131	75.50	76.50	1.00	0.15	0.08	0.02	2.23	0.02	0.01	0.04	0.25
PG03132	76.50	77.50	1.00	0.13	0.13	0.01	2.01	0.01	0.01	0.43	0.25
PG03133	77.50	78.40	0.90	0.21	0.22	0.03	3.46	0.01	0.01	0.05	0.80
PG03134	78.40	79.60	1.20	0.03	0.20	0.01	0.41	0.02	0.01	0.02	0.25
PG03135	79.60	80.60	1.00	0.66	0.37	0.06	10.40	0.02	0.01	0.03	0.60
PG03136	80.60	81.15	0.55	0.06	0.19	0.01	0.85	0.01	0.01	0.02	0.25
PG03137	81.15	81.60	0.45	0.99	0.10	0.08	14.90	0.03	0.05	0.04	0.25

Detailed Lithology							Assay Data											
From	To	Lithology					Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Mineralization	72.50	73.50	0.5%	Po Pyrrhotite D Disseminated Trace po, most of intervals consists of unmin. UM dykes												
		Mineralization	73.50	78.40	5.0%	Po Pyrrhotite BB Blebby Po blebs and disseminations throughout												
		Mineralization	78.40	79.60	0.5%	Cpy Chalcopyrite F Fracture-Controlled Trace cp & po filling fracture												
		Mineralization	79.60	80.60	3.0%	Cpy Chalcopyrite F Fracture-Controlled CP concentrated in 7cm wide siliceous zc												
		Mineralization	79.60	80.60	20.0%	Po Pyrrhotite NT Net-Textured Net-textured to locally semi-massive; one 5cm wide zone of siliceous rock.												
		Mineralization	79.60	80.60	2.0%	Py Pyrite D Disseminated Intermixed with po.												
		Mineralization	80.60	81.15	1.0%	Py Pyrite F Fracture-Controlled Very fine grained pyrite along fractures in fine grained norite												
		Mineralization	81.15	81.60	5.0%	Py Pyrite D Disseminated Intermixed with po												
		Mineralization	81.15	81.60	30.0%	Po Pyrrhotite SM Semi-Massive Breccia textures locally; interval includes 8cm wide siliceous zone												

Detailed Lithology

From	To	Lithology
81.60	87.90	**5a Siliceous Metasediments** Inhomogenous interval of fine grained, foliated to banded siliceous metasediments consisting of variable amounts of quartz, feldspar, biotite, altered mafic minerals (?) ± garnet. 7cm wide zone of what appears to be well banded to laminated chert at 81.9m. Cm scale anorthositic bands locally. Remobilized po±py locally as disseminations and fracture fillings, including one 4cm wide semi-massive band at 84.2m. Conductivity: typically non-conductive, but strongly conductive over po mineralization. Magnetic Susceptibility: 0.6-3 **Mineralization** 84.10 85.00 10.0% Po Pyrrhotite SM Semi-Massive 8% po, 2% py mainly in one 4cm wide sei massive band at 84.2m **Mineralization** 85.90 86.40 7.0% Po Pyrrhotite F Fracture-Controlled 5% po, 2% py along fractures & disseminated **Structure** 81.90 81.91 Sm General Foliation **Structure** 86.60 86.61 Sm General Foliation
87.90	100.20	**6d Pyroxenite** Medium grained, foliated to massive, dark green pyroxenite consisting of 85-95% altered (?) pyroxene, 1-10% fine grained chlorite and 1% to 5% pyrrhotite. Pyrrhotite occurs as disseminations and blebs and is moderately magnetic. Conductivity: Conductive where po mineralization is interconnected. Magnetic susceptibility: 1-15, avg = 5 **Mineralization** 94.00 100.20 2.0% Po Pyrrhotite D Disseminated **Structure** 88.70 88.71 Sm General Foliation **Structure** 98.30 98.31 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03138	81.60	82.10	0.50	0.15	0.16	0.02	2.46	0.02	0.01	0.02	0.25
PG03139	82.10	83.00	0.90	0.03	0.07	0.01	0.87	0.02	0.01	0.05	0.25
PG03140	83.00	84.10	1.10	0.03	0.03	0.01	0.27	0.01	0.01	0.01	0.25
PG03141	84.10	85.00	0.90	0.27	0.13	0.03	3.98	0.03	0.01	0.02	0.25
PG03142	85.00	85.90	0.90	0.18	0.13	0.02	2.85	0.02	0.01	0.07	0.25
PG03143	85.90	86.40	0.50	0.34	0.17	0.04	5.98	0.03	0.01	0.03	0.25
PG03144	86.40	87.00	0.60	0.03	0.20	0.01	0.94	0.01	0.01	0.11	0.50
PG03145	94.00	95.00	1.00	0.17	0.06	0.01	1.46	0.01	0.01	0.03	0.25
PG03146	95.00	96.00	1.00	0.13	0.03	0.02	0.98	0.01	0.01	0.01	0.25
PG03147	96.00	97.00	1.00	0.13	0.09	0.01	1.04	0.01	0.01	0.01	0.25
PG03148	97.00	98.00	1.00	0.21	0.10	0.02	1.42	0.02	0.01	0.07	0.25
PG03149	98.00	99.00	1.00	0.27	0.14	0.02	1.87	0.01	0.01	0.03	0.25
PG03151	99.00	100.20	1.20	0.16	0.07	0.01	1.38	0.02	0.01	0.02	0.25

Detailed Lithology

From	To	Lithology
100.20	131.45	**5a Siliceous Metasediments** Interval dominated by siliceous, garnet-bearing metasediments. 100.2-104.4m: Inhomogenous interval consisting of 60% fine grained, banded, grey siliceous metasediments and 40% medium grained anorthositic gabbro. Both rock types are garnet-bearing with the metasediments containing garnet-rich beds and the anorthositic gabbro containing medium to coarse grained recrystallized garnet. 104.4-113m: Fine grained, dark grey, massive to weakly foliated quartzo-feldspathic unit consisting of variably amounts of felsdpar, mafic minerals, quartz, biotite, muscovite ± garnet. (Psammitic metasediments?). 113-131.4m: Fine grained, banded siliceous metasediments consisting of alternating grey siliceous beds and pink, more pelitic garnet-rich beds. Unit also contains cm to dm scale intervals of what appears to be coarser grained , massive garnet-bearing anorthosite (eg. 116.6-117.7m, 118.8-119.2m, 121.55-122.05m, 127.9-128.8m). Metasediments are cross-cut by several aphanitic, magnetic, black ultramafic dykes as follows: 113.3-113.75m: irregular uphole contact; downhole contact at 80° to CA 119.2-120.2m: uphole and downhole contacts at 10° to CA 125.6-127m: uphole contact at 65° to CA; downhole contact at 10° to CA 127.4-127.6m: uphole contact at 60° to CA; downhole contact at 50° to CA Aphanitic dykes typically contains rounded, diffuse white grains 1-3mm in diameter. In one dyke, these grains become much smaller and highly concentrated at the dyke contacts, possible due to effects of rapid cooling. Conductivity: Non-conductive. Magnetic susceptibility: 2-6 between 100.2 and 113m; typically < 2 between 113 and 131.4m (except for magnetic dykes which range from 9-18). **Mineralization** 123.90 124.20 10.0% Po STR Pyrrhotite Stringers **Structure** 100.90 100.91 Sm General Foliation **Structure** 114.80 114.81 Sm General Foliation **Structure** 122.60 122.61 Sm General Foliation **Structure** 129.50 129.51 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03152	123.90	124.20	0.30	0.08	0.06	0.03	4.74	0.03	0.03	0.04	0.25

Espedalen - Analysis

Hole Number: ES2004-14

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03114	60.10	61.00	0.90	0.13	0.07	0.01	0.97	0.02	0.02	0.01	0.25																
PG03115	61.00	61.75	0.75	0.11	0.11	0.01	0.97	0.03	0.01	0.01	0.25																
PG03116	61.75	63.00	1.25	0.20	0.07	0.01	1.63	0.01	0.01	0.01	0.25																
PG03117	63.00	64.00	1.00	0.16	0.11	0.03	1.46	0.03	0.03	0.01	0.60																
PG03118	64.00	65.00	1.00	0.19	0.16	0.02	2.01	0.04	0.02	0.01	0.25																
PG03119	65.00	66.00	1.00	0.14	0.06	0.03	1.10	0.03	0.01	0.01	0.25																
PG03120	66.00	67.00	1.00	0.17	0.06	0.03	1.63	0.08	0.01	0.01	0.70																
PG03121	67.00	68.00	1.00	0.19	0.07	0.02	2.14	0.02	0.01	0.01	0.25																
PG03122	68.00	69.00	1.00	0.16	0.08	0.02	1.68	0.04	0.02	0.01	0.25																
PG03123	69.00	70.00	1.00	0.16	0.07	0.03	1.83	0.02	0.01	0.01	0.25																
PG03124	70.00	71.00	1.00	0.12	0.06	0.01	1.25	0.01	0.02	0.01	0.25																
PG03126	71.00	72.00	1.00	0.13	0.03	0.01	1.21	0.01	0.01	0.01	0.25																
PG03127	72.00	72.50	0.50	0.13	0.03	0.03	1.47	0.03	0.02	0.01	0.25																
PG03128	72.50	73.50	1.00	0.05	0.03	0.01	0.77	0.03	0.01	0.01	0.25																
PG03129	73.50	74.50	1.00	0.14	0.10	0.01	1.92	0.09	0.02	0.01	0.25																
PG03130	74.50	75.50	1.00	0.11	0.03	0.01	1.38	0.02	0.01	0.01	0.25																
PG03131	75.50	76.50	1.00	0.15	0.08	0.02	2.23	0.04	0.02	0.01	0.25																
PG03132	76.50	77.50	1.00	0.13	0.13	0.01	2.01	0.43	0.01	0.01	0.25																
PG03133	77.50	78.40	0.90	0.21	0.22	0.03	3.46	0.05	0.01	0.01	0.80																
PG03134	78.40	79.60	1.20	0.03	0.20	0.01	0.41	0.02	0.02	0.01	0.25																
PG03135	79.60	80.60	1.00	0.66	0.37	0.06	10.40	0.03	0.02	0.01	0.60																
PG03136	80.60	81.15	0.55	0.06	0.19	0.01	0.85	0.02	0.01	0.01	0.25																
PG03137	81.15	81.60	0.45	0.99	0.10	0.08	14.90	0.04	0.03	0.05	0.25																
PG03138	81.60	82.10	0.50	0.15	0.16	0.02	2.46	0.02	0.02	0.01	0.25																
PG03139	82.10	83.00	0.90	0.03	0.07	0.01	0.87	0.05	0.02	0.01	0.25																
PG03140	83.00	84.10	1.10	0.03	0.03	0.01	0.27	0.01	0.01	0.01	0.25																
PG03141	84.10	85.00	0.90	0.27	0.13	0.03	3.98	0.02	0.03	0.01	0.25																
PG03142	85.00	85.90	0.90	0.18	0.13	0.02	2.85	0.07	0.02	0.01	0.25																
PG03143	85.90	86.40	0.50	0.34	0.17	0.04	5.98	0.03	0.03	0.01	0.25																

Espedalen - Analysis

Hole Number: ES2004-14

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03144	86.40	87.00	0.60	0.03	0.20	0.01	0.94	0.11	0.01	0.01	0.50																
PG03145	94.00	95.00	1.00	0.17	0.06	0.01	1.46	0.03	0.01	0.01	0.25																
PG03146	95.00	96.00	1.00	0.13	0.03	0.02	0.98	0.01	0.01	0.01	0.25																
PG03147	96.00	97.00	1.00	0.13	0.09	0.01	1.04	0.01	0.01	0.01	0.25																
PG03148	97.00	98.00	1.00	0.21	0.10	0.02	1.42	0.07	0.02	0.01	0.25																
PG03149	98.00	99.00	1.00	0.27	0.14	0.02	1.87	0.03	0.01	0.01	0.25																
PG03151	99.00	100.20	1.20	0.16	0.07	0.01	1.38	0.02	0.02	0.01	0.25																
PG03152	123.90	124.20	0.30	0.08	0.06	0.03	4.74	0.04	0.03	0.03	0.25																

Espedalen - Conductivity

Hole Number: ES2004-14

Depth	Conductivity (Siemens)	COMMENTS
69.25	27.00	
69.80	40.00	
75.80	175.00	
76.80	77.00	
77.60	162.00	
78.00	780.00	
78.10	135.00	
79.80	999.00	1300
80.40	999.00	3075
81.20	700.00	
81.40	999.00	2200
84.20	999.00	1087
84.60	53.00	
86.10	560.00	
123.95	230.00	
124.05	200.00	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-14

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
2.50	0.25	
3.50	0.51	
4.50	0.37	
5.50	0.36	
6.50	0.37	
7.50	0.87	
8.50	0.37	
9.50	0.97	
10.50	7.04	
11.50	12.60	
12.50	6.82	
13.50	3.16	
14.50	1.35	
15.50	0.76	
16.50	0.67	
17.50	0.48	
18.50	0.33	
19.50	0.69	
20.50	42.90	
21.50	33.90	
22.50	2.05	
23.50	0.43	
24.50	0.26	
25.50	0.77	
26.50	0.70	
27.50	0.82	
28.50	0.60	
29.50	0.66	
30.50	0.52	
31.50	0.49	
32.50	1.38	
33.50	12.40	
34.50	1.67	
35.50	0.39	
36.50	0.36	
37.50	0.75	
38.50	0.48	
39.50	0.44	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-14

40.50	0.43	
41.50	0.66	
42.50	0.47	
43.50	0.41	
44.50	0.46	
45.50	5.29	
46.50	1.35	
47.50	1.49	
48.50	0.29	
49.50	0.39	
50.50	0.51	
51.50	6.25	
52.50	2.51	
53.50	4.76	
54.50	4.09	
55.50	1.95	
56.50	3.37	
57.50	1.38	
58.50	0.85	
59.50	17.80	
60.50	8.65	
61.50	2.44	
62.50	21.00	
63.50	3.63	
64.50	3.52	
65.50	1.81	
66.50	1.60	
67.50	1.17	
68.50	0.79	
69.50	2.79	
70.50	2.76	
71.50	1.30	
72.50	1.78	
73.50	1.65	
74.50	51.40	
75.50	33.60	
76.50	7.14	
77.50	2.07	
78.50	6.37	
79.50	0.74	
80.50	0.41	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-14
81.50	7.80	
82.50	8.01	
83.50	3.02	
84.50	0.64	
85.50	1.45	
86.50	0.76	
87.50	1.23	
88.50	1.32	
89.50	2.65	
90.50	3.32	
91.50	1.71	
92.50	2.08	
93.50	5.57	
94.50	6.93	
95.50	9.73	
96.50	5.81	
97.50	9.89	
98.50	10.90	
99.50	14.40	
100.50	1.41	
101.50	2.16	
102.50	3.85	
103.50	2.40	
104.50	2.08	
105.50	1.38	
106.50	1.80	
107.50	1.77	
108.50	2.66	
109.50	3.03	
110.50	5.77	
111.50	2.21	
112.50	5.86	
113.50	6.18	
114.50	18.10	
115.50	3.44	
116.50	0.45	
117.50	0.52	
118.50	0.53	
119.50	1.99	
120.50	8.87	
121.50	1.13	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-14

122.50	2.20	
123.50	0.32	
124.50	2.66	
125.50	6.34	
126.50	0.76	
127.50	13.40	
128.50	11.00	
129.50	0.37	
130.50	0.86	
131.50	0.19	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-14

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
2.35	5.00	43	100	N	
5.00	8.00	62	100	N	
8.00	11.00	83	99	N	
11.00	14.00	85	100	N	
14.00	17.00	58	100	N	
17.00	20.00	55	100	N	
20.00	23.00	65	100	N	
23.00	26.00	77	100	N	
26.00	29.00	68	100	N	
29.00	32.00	86	100	N	
32.00	35.00	64	99	N	
35.00	38.00	75	100	N	
38.00	41.00	77	100	N	
41.00	44.00	70	100	N	
44.00	47.00	81	100	N	
47.00	50.00	70	100	N	
50.00	53.00	65	100	N	
53.00	55.00	46	100	N	
55.00	58.00	62	100	N	
58.00	61.00	73	100	N	
61.00	64.00	57	100	N	
64.00	67.00	69	100	N	
67.00	70.00	77	100	N	
70.00	73.00	68	100	N	
73.00	76.00	86	100	N	
76.00	79.00	77	100	N	
79.00	82.00	69	100	N	
82.00	85.00	66	100	N	
85.00	88.00	57	100	N	
88.00	91.00	70	100	N	
91.00	94.00	62	100	N	
94.00	97.00	63	100	N	
97.00	100.00	56	100	N	
100.00	103.00	62	100	N	
103.00	106.00	65	100	N	
106.00	109.00	67	100	N	
109.00	112.00	72	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-14

112.00	115.00	64	100	N	
115.00	118.00	80	100	N	
118.00	121.00	65	100	N	
121.00	124.00	69	100	N	
124.00	127.00	70	100	N	
127.00	130.00	57	100	N	
130.00	131.45	83	100	N	131.45m End of Hole

Detailed Log

Hole Number: **ES2004-15** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Geo Drilling A/S
		Pulse EM Survey:	N				
Date Started:	9/19/2004	Casing:	Left in Hole, capped				
Date Completed:	9/22/2004	Location:	Surface			Logged by:	Yannick Beaudoin

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,809,422.71	Local Northing:	6452.54
UTM Easting:	532,813.31	Local Easting:	3687.65
Elevation:	1282.99		

Collar Dip:	-50.00
Collar Azimuth:	230.00
Length:	123.25

Comments

Purpose: To further test UTEM conductor ESP_10_08. Two conductive plates modelled, each with a conductance of 375 siemens. This hole is a 85m step-out grid east of hole ES2004-14.

Result: Intersected variably mineralized norite and pyroxenites between 39.00m and 76.30m. Sulphides consist of pyrrhotite ± pyrite± chalcopyrite as disseminations, blebs and local remobilized veinlets/stringers. Intersected 10-15% fracture-controlled pyrrhotite in siliceous metasediments from 79.60-80.50m.

Assays: 0.44% Ni, 0.22% Cu, 0.04% Co / 4.95m (49.85-54.80m) (avg.)
0.68% Ni, 0.40% Cu, 0.04% Co / 0.50m (63.00-63.50m)
0.70% Ni, 0.19% Cu, 0.05% Co / 0.30m (76.00-76.30m)
0.44% Ni, 0.19% Cu, 0.02% Co / 0.90m (79.60-80.50m)

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Similar to hole ES2004-14. Sequence of norites and pyroxenites which have intruded siliceous metasediments and are cross-cut by magnetic, mafic alkaline (?) dykes.

Detailed Lithology

From	To		Lithology
0.00	2.00	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
2.00	29.35	**6f Norite** Medium grained, white and grey, equigranular massive to weakly foliated norite. Consists of 50-60% altered mafic minerals (pyroxene ?) and 40-50% plagioclase. Mafic minerals are extensively altered to biotite and chlorite. Similar to norites in hole ES2004-14 but more leucocratic and not as extensively altered. Norite is locally in contact with dm scale intervals of medium grained, green, chloritized pyroxenite (eg. 12.4-12.95m, 17.85-18.8m, 23.15-25.05m). Contacts between the two rock types are abrupt but diffuse. Pyroxenites locally contain trace finely disseminated pyrrhotite and/or pyrite. Conductivity: Non-conductive Magnetic susceptibility: Typically between 0.l and 1. Pyroxenites more magnetic and variabe from 1-20. Interpretation: Gabbroic/noritic unit related to ultramafic rocks based on contact relationships and correlation with hole ES2004-14. **Structure** 8.85 8.86 Sm General Foliation **Structure** 17.80 17.81 Sm General Foliation
29.35	39.00	**8f Aphanitic UM Dyke** Very fine grained, dark grey, massive, equigranular magnetic ultramafic dyke similar to those observed in ES2004-14 but slightly coarser grained. Core of dyke is slightly coarser grained and looks like a pyroxenite consisting of 85-90% pyroxene, 5-10% biotite and 1-2% very fine grained magnetite. Rare trace disseminated pyrite. Margins of dyke are finer grained and downhole contact is chilled. 15cm wide zone adjacent to donwhole contact containing 10% rounded, diffuse, white grains 2-4mm in diameter. Uphole contact at 40° to CA; broken core at downhole contact but estimated at 60° to CA. Conductivity: Non-conductive Magnetic susceptibility: 9-30 Interpretation: Post-dates mineralized UM bodies but genetic relationship unclear. NOTE: A whole rock analysis from a similar dyke in hole ES2004-16 yielded a composition similar to an alkaline olivine basalt suggesting that these dykes are mafic (versus ultramafic) and of alkaline affinity.
39.00	49.85	**6d Pyroxenite** Medium grained, green, massive to weakly foliated, chloritized pyroxenite containing trace to 10% disseminated and blebby pyrrhotite (esp. downhole of 41m). Conductivity: Locally conductive where po blebs are interconnected. Magnetic susceptibility: 0.2-2 **Mineralization** 41.00 49.85 3.0% Po Pyrrhotite D Disseminated 2-5% po disseminations & blebs througho

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03153	41.00	42.00	1.00	0.15	0.16	0.01	1.44	0.02	0.01	0.01	0.25
PG03154	42.00	43.00	1.00	0.16	0.10	0.03	1.96	0.03	0.01	0.03	0.25
PG03155	43.00	44.00	1.00	0.16	0.15	0.03	1.95	0.01	0.01	0.02	0.25
PG03156	44.00	45.00	1.00	0.11	0.03	0.01	1.29	0.02	0.01	0.01	0.25
PG03157	45.00	46.00	1.00	0.17	0.09	0.01	2.22	0.03	0.01	0.03	0.25
PG03158	46.00	47.00	1.00	0.11	0.06	0.01	1.49	0.02	0.01	0.01	0.25
PG03159	47.00	48.00	1.00	0.09	0.03	0.01	1.26	0.01	0.01	0.01	0.25
PG03160	48.00	49.00	1.00	0.06	0.03	0.01	0.71	0.02	0.01	0.01	0.25
PG03161	49.00	49.85	0.85	0.07	0.07	0.01	0.89	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
49.85	65.10	**6f Norite**

Inhomogenous interval of heavily mineralized, locally silicified (?) norite containing 15% mm to cm scale white feldspathic bands/schlieren which may represent partially digested anorthosite. Mineralization consists of stringers and veins of massive pyrrhotite±pyrite as well as pyrrhotite disseminations and blebs. Trace cp locally. Heaviest mineralization occurs between 49.85 and 55.35m. Contact with uphole pyroxenite marked by first appearance of massive po and transition to more feldspathic composition.

Conductivity: Strongly conductive between 49.85 and 55.35m (2200-3400 siemens) and between 63 and 63.5m (approx. 2000 siemens).
Magnetic susceptibility: Typically between 0.2 and 2; massive po only weakly magnetic (<1 to 5).

Interpretation: Interpreted to be norite but locally looks quite siliceous, possibly due to contamination from adjacent metasediments.

Mineralization	49.85	52.80	5.0%	Py	Pyrite
				D	Disseminated
				Intermixed with po, trace cp locally	
Mineralization	49.85	52.80	20.0%	Po	Pyrrhotite
				M	Massive
				Avg. of 20% po occurring as cm scale massive bands and stringers as well as disseminations	
Mineralization	52.80	54.00	10.0%	Po	Pyrrhotite
				F	Fracture-Controlled
				10% po as blebs, disseminations and fracture fillings	
Mineralization	54.00	54.80	15.0%	Po	Pyrrhotite
				NT	Net-Textured
				12% po, 3% py heavily disseminated to n textured	
Mineralization	54.80	55.35	8.0%	Po	Pyrrhotite
				D	Disseminated
Mineralization	55.35	63.00	2.0%	Po	Pyrrhotite
				D	Disseminated
				1-3% disseminated po	
Mineralization	63.00	63.50	30.0%	Po	Pyrrhotite
				SM	Semi-Massive
				30% po, 1% cp net-textured to semi-massive	
Structure	58.50	58.51	Sm	General Foliation	
Structure	62.60	62.61	Sm	General Foliation	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03162	49.85	50.60	0.75	0.48	0.17	0.04	9.35	0.03	0.02	0.01	0.25
PG03163	50.60	51.60	1.00	0.70	0.29	0.07	13.80	0.03	0.02	0.02	0.25
PG03164	51.60	52.80	1.20	0.45	0.17	0.04	9.18	0.06	0.02	0.03	0.25
PG03165	52.80	54.00	1.20	0.18	0.25	0.02	4.06	0.02	0.01	0.02	0.60
PG03166	54.00	54.80	0.80	0.45	0.19	0.03	8.46	0.03	0.01	0.02	0.25
PG03167	54.80	55.35	0.55	0.20	0.16	0.01	4.18	0.01	0.01	0.02	0.25
PG03168	55.35	56.50	1.15	0.07	0.09	0.01	1.43	0.02	0.01	0.02	0.25
PG03169	56.50	57.50	1.00	0.15	0.13	0.01	2.98	0.01	0.01	0.01	0.25
PG03170	57.50	58.50	1.00	0.10	0.03	0.02	2.19	0.01	0.01	0.01	0.25
PG03171	58.50	59.50	1.00	0.09	0.07	0.01	1.84	0.01	0.01	0.01	0.25
PG03172	59.50	60.50	1.00	0.12	0.08	0.01	2.12	0.04	0.01	0.02	0.25
PG03173	60.50	61.50	1.00	0.09	0.06	0.02	1.73	0.04	0.01	0.02	0.25
PG03174	61.50	62.50	1.00	0.07	0.03	0.01	1.63	0.01	0.01	0.02	0.25
PG03176	62.50	63.00	0.50	0.19	0.20	0.01	3.62	0.03	0.02	0.04	0.25
PG03178	63.00	63.50	0.50	0.68	0.40	0.04	12.40	0.02	0.01	0.07	1.00
PG03179	63.50	64.00	0.50	0.14	0.33	0.01	2.51	0.01	0.01	0.03	0.60

Detailed Lithology

From	To	Lithology
65.10	68.20	**5a Siliceous Metasediments** Inhomogeneous interval consisting of 70% fine grained, dark siliceous metasediment (?) and 30% medium grained white to grey cm scale plagioclase-rich bands (norite/anorthosite?). Trace to 2% disseminated po. Uphole contact gradational; downhole contact abrupt, estimated at 70° to CA. Conductivity: Locally conductive where po is interconnected. Magnetic susceptibility: <1 **Structure** 66.50 66.51 Sm General Foliation
68.20	76.30	**6d Pyroxenite** Medium grained, light to dark green, weakly foliated pyroxenite as uphole. Contains 1-5% disseminated pyrrhotite throughout. Conductivity: Conductive where po is interconnected Magnetic Susceptibility: 0.2-7.3; center of unit most magnetic. **Mineralization** 68.20 76.00 3.0% Po Pyrrhotite D Disseminated 1-5% po disseminated throughout **Mineralization** 76.00 76.30 10.0% Po Pyrrhotite D Disseminated Heavier mineralization at downhole conta of UM **Structure** 72.40 72.41 Sm General Foliation **Structure** 75.60 75.61 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03180	68.20	69.00	0.80	0.24	0.09	0.01	2.55	0.01	0.01	0.01	0.25
PG03181	69.00	70.00	1.00	0.21	0.07	0.03	1.94	0.01	0.01	0.02	0.25
PG03182	70.00	71.00	1.00	0.34	0.29	0.03	3.43	0.01	0.01	0.02	0.50
PG03183	71.00	72.00	1.00	0.25	0.13	0.01	2.02	0.01	0.01	0.01	0.25
PG03184	72.00	73.00	1.00	0.31	0.12	0.02	2.34	0.02	0.01	0.02	0.25
PG03185	73.00	74.00	1.00	0.37	0.11	0.02	2.86	0.01	0.01	0.02	0.25
PG03186	74.00	75.00	1.00	0.31	0.09	0.04	2.46	0.01	0.01	0.01	0.25
PG03187	75.00	76.00	1.00	0.24	0.09	0.02	1.73	0.01	0.01	0.02	0.25
PG03188	76.00	76.30	0.30	0.70	0.19	0.05	5.49	0.08	0.02	0.03	0.25

Detailed Lithology

From	To	Lithology
76.30	123.25	**5a Siliceous Metasediments** Interval is dominated by fine grained, foliated and bedded grey and pink siliceous and garnet-bearing metasediments similar to metasediments intersected in ES2004-14 between 100.2 and 131.4m. Rare trace disseminated or fracture-controlled po and/or py. Metasediments are cross-cut by 10% dm scale, fine grained, dark green amphibolitic mafic/ultramafic dykes which are concordant to bedding and foliation in the metasediments (eg. 84.6-84.95m, 93.15-93.75m, 94.1-94.7m, 103.9-105.5m, 107.3-107.6, 119.05-119.9, 122.25-122.65m). 85-98m: Fine to medium grained , dark grey, foliated quartzo-feldspathic unit consisting of variably amounts of feldspar, quartz, biotite, muscovite ± very fine grained magnetite. ("dirty" recrystallized psammitic metasediments?). Conductivity: Non-conductive Magnetic susceptibility: Typically < 1; mafic dykes variably magnetic ranging from 1-40; quartzofeldspathic metasediments typically between 1 and 6. Interpretation: Large raft of supracrustal rocks entrained within anorthositic complex? **Mineralization** 80.00 80.50 10.0% Po Pyrrhotite F Fracture-Controlled pyrrhotite remobilized (?) in sheared metasediments **Mineralization** 102.20 102.70 3.0% Py Pyrite F Fracture-Controlled 2% py, 1% po in fracture-controlled blebs, stringers **Structure** 81.60 81.61 Sm General Foliation **Structure** 99.90 99.91 Sm General Foliation **Structure** 109.50 109.51 Sm General Foliation **Structure** 112.45 112.46 Sm General Foliation **Structure** 121.70 121.71 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03189	76.30	76.80	0.50	0.22	0.12	0.02	1.70	0.01	0.01	0.04	0.25
PG03190	79.60	80.00	0.40	0.44	0.20	0.01	4.51	0.01	0.01	0.03	0.25
PG03191	80.00	80.50	0.50	0.45	0.18	0.03	4.58	0.01	0.01	0.02	0.25
PG03192	80.50	81.00	0.50	0.03	0.03	0.01	0.53	0.01	0.01	0.01	0.25
PG03193	102.20	102.70	0.50	0.03	0.03	0.01	1.60	0.01	0.01	0.02	0.25

Espedalen - Analysis

Hole Number: ES2004-15

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03153	41.00	42.00	1.00	0.15	0.16	0.01	1.44	0.01	0.02	0.01	0.25																
PG03154	42.00	43.00	1.00	0.16	0.10	0.03	1.96	0.03	0.03	0.01	0.25																
PG03155	43.00	44.00	1.00	0.16	0.15	0.03	1.95	0.02	0.01	0.01	0.25																
PG03156	44.00	45.00	1.00	0.11	0.03	0.01	1.29	0.01	0.02	0.01	0.25																
PG03157	45.00	46.00	1.00	0.17	0.09	0.01	2.22	0.03	0.03	0.01	0.25																
PG03158	46.00	47.00	1.00	0.11	0.06	0.01	1.49	0.01	0.02	0.01	0.25																
PG03159	47.00	48.00	1.00	0.09	0.03	0.01	1.26	0.01	0.01	0.01	0.25																
PG03160	48.00	49.00	1.00	0.06	0.03	0.01	0.71	0.01	0.02	0.01	0.25																
PG03161	49.00	49.85	0.85	0.07	0.07	0.01	0.89	0.01	0.01	0.01	0.25																
PG03162	49.85	50.60	0.75	0.48	0.17	0.04	9.35	0.01	0.03	0.02	0.25																
PG03163	50.60	51.60	1.00	0.70	0.29	0.07	13.80	0.02	0.03	0.02	0.25																
PG03164	51.60	52.80	1.20	0.45	0.17	0.04	9.18	0.03	0.06	0.02	0.25																
PG03165	52.80	54.00	1.20	0.18	0.25	0.02	4.06	0.02	0.02	0.01	0.60																
PG03166	54.00	54.80	0.80	0.45	0.19	0.03	8.46	0.02	0.03	0.01	0.25																
PG03167	54.80	55.35	0.55	0.20	0.16	0.01	4.18	0.02	0.01	0.01	0.25																
PG03168	55.35	56.50	1.15	0.07	0.09	0.01	1.43	0.02	0.02	0.01	0.25																
PG03169	56.50	57.50	1.00	0.15	0.13	0.01	2.98	0.01	0.01	0.01	0.25																
PG03170	57.50	58.50	1.00	0.10	0.03	0.02	2.19	0.01	0.01	0.01	0.25																
PG03171	58.50	59.50	1.00	0.09	0.07	0.01	1.84	0.01	0.01	0.01	0.25																
PG03172	59.50	60.50	1.00	0.12	0.08	0.01	2.12	0.02	0.04	0.01	0.25																
PG03173	60.50	61.50	1.00	0.09	0.06	0.02	1.73	0.02	0.04	0.01	0.25																
PG03174	61.50	62.50	1.00	0.07	0.03	0.01	1.63	0.02	0.01	0.01	0.25																
PG03176	62.50	63.00	0.50	0.19	0.20	0.01	3.62	0.04	0.03	0.02	0.25																
PG03178	63.00	63.50	0.50	0.68	0.40	0.04	12.40	0.07	0.02	0.01	1.00																
PG03179	63.50	64.00	0.50	0.14	0.33	0.01	2.51	0.03	0.01	0.01	0.60																
PG03180	68.20	69.00	0.80	0.24	0.09	0.01	2.55	0.01	0.01	0.01	0.25																
PG03181	69.00	70.00	1.00	0.21	0.07	0.03	1.94	0.02	0.01	0.01	0.25																
PG03182	70.00	71.00	1.00	0.34	0.29	0.03	3.43	0.02	0.01	0.01	0.50																
PG03183	71.00	72.00	1.00	0.25	0.13	0.01	2.02	0.01	0.01	0.01	0.25																

Espedalen - Analysis

Hole Number: ES2004-15

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03184	72.00	73.00	1.00	0.31	0.12	0.02	2.34	0.02	0.02	0.01	0.25																
PG03185	73.00	74.00	1.00	0.37	0.11	0.02	2.86	0.02	0.01	0.01	0.25																
PG03186	74.00	75.00	1.00	0.31	0.09	0.04	2.46	0.01	0.01	0.01	0.25																
PG03187	75.00	76.00	1.00	0.24	0.09	0.02	1.73	0.02	0.01	0.01	0.25																
PG03188	76.00	76.30	0.30	0.70	0.19	0.05	5.49	0.03	0.08	0.02	0.25																
PG03189	76.30	76.80	0.50	0.22	0.12	0.02	1.70	0.04	0.01	0.01	0.25																
PG03190	79.60	80.00	0.40	0.44	0.20	0.01	4.51	0.03	0.01	0.01	0.25																
PG03191	80.00	80.50	0.50	0.45	0.18	0.03	4.58	0.02	0.01	0.01	0.25																
PG03192	80.50	81.00	0.50	0.03	0.03	0.01	0.53	0.01	0.01	0.01	0.25																
PG03193	102.20	102.70	0.50	0.03	0.03	0.01	1.60	0.02	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2004-15

Depth	Conductivity (Siemens)	COMMENTS
41.80	30.00	
42.70	135.00	
43.10	42.00	
43.90	85.00	
44.80	55.00	
47.00	20.00	
49.90	999.00	1141 siemens
50.70	999.00	3400 siemens
51.10	218.00	
51.60	999.00	2700 siemens
51.90	445.00	
52.20	999.00	1850 siemens
52.70	999.00	1319 siemens
53.20	999.00	1430 siemens
54.20	549.00	
54.70	325.00	
55.20	216.00	
57.10	68.00	
57.60	136.00	
58.10	40.00	
59.00	175.00	
59.60	46.00	
63.10	999.00	1970 siemens
63.40	999.00	2240 siemens
68.50	110.00	
69.10	40.00	
70.05	330.00	
72.30	37.00	
74.70	40.00	
76.10	96.00	
76.30	925.00	
77.90	24.00	
80.20	260.00	
102.70	220.00	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-15

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
2.50	0.46	
3.50	0.57	
4.50	0.23	
5.50	0.51	
6.50	0.84	
7.50	0.33	
8.50	0.26	
9.50	0.15	
10.50	0.25	
11.50	2.41	
12.50	17.30	
13.50	1.82	
14.50	0.37	
15.50	0.36	
16.50	0.52	
17.50	0.42	
18.50	1.49	
19.50	0.80	
20.50	0.26	
21.50	0.07	
22.50	0.52	
23.50	3.25	
24.50	1.66	
25.50	0.62	
26.50	0.29	
27.50	0.28	
28.50	3.78	
29.50	14.10	
30.50	9.40	
31.50	28.40	
32.50	17.20	
33.50	18.70	
34.50	25.70	
35.50	7.24	
36.50	14.70	
37.50	9.90	
38.50	26.20	
39.50	1.54	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-15

40.50	0.31	
41.50	1.48	
42.50	0.45	
43.50	0.84	
44.50	1.80	
45.50	0.37	
46.50	0.32	
47.50	0.49	
48.50	0.64	
49.50	0.24	
50.50	2.25	
51.50	1.21	
52.50	0.65	
53.50	0.32	
54.50	1.41	
55.50	0.19	
56.50	0.82	
57.50	0.19	
58.50	0.40	
59.50	0.12	
60.50	0.19	
61.50	0.84	
62.50	0.89	
63.50	1.27	
64.50	0.14	
65.50	0.27	
66.50	0.50	
67.50	0.62	
68.50	0.24	
69.50	0.19	
70.50	0.69	
71.50	7.27	
72.50	6.11	
73.50	1.52	
74.50	0.96	
75.50	1.61	
76.50	0.58	
77.50	0.09	
78.50	0.27	
79.50	0.15	
80.50	0.21	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-15
81.50	0.24	
82.50	0.01	
83.50	0.04	
84.50	0.19	
85.50	2.91	
86.50	0.57	
87.50	9.55	
88.50	3.05	
89.50	4.96	
90.50	2.80	
91.50	2.15	
92.50	1.59	
93.50	0.32	
94.50	1.33	
95.50	3.05	
96.50	1.26	
97.50	2.91	
98.50	0.45	
99.50	0.30	
100.50	0.08	
101.50	0.32	
102.50	0.68	
103.50	0.56	
104.50	2.18	
105.50	1.02	
106.50	0.75	
107.50	0.26	
108.50	0.41	
109.50	0.08	
110.50	0.01	
111.50	0.12	
112.50	0.13	
113.50	0.12	
114.50	0.06	
115.50	0.48	
116.50	3.10	
117.50	0.68	
118.50	0.70	
119.50	41.40	
120.50	0.49	
121.50	0.26	

122.50	6.46	123.25m End of Hole

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-15

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
0.00	2.00	0	0	N	Casing
2.00	5.00	84	100	N	
5.00	8.00	80	100	N	
8.00	11.00	57	100	N	
11.00	14.00	65	100	N	
14.00	17.00	66	100	N	
17.00	20.00	79	100	N	
20.00	23.00	69	100	N	
23.00	26.00	68	100	N	
26.00	29.00	54	100	N	
29.00	32.00	67	100	N	
32.00	35.00	70	100	N	
35.00	38.00	71	100	N	
38.00	41.00	66	100	N	
41.00	44.00	35	100	N	
44.00	47.00	72	100	N	
47.00	50.00	70	100	N	
50.00	53.00	64	100	N	
53.00	56.00	62	100	N	
56.00	59.00	54	100	N	
59.00	62.00	63	100	N	
62.00	65.00	50	100	N	
65.00	68.00	69	100	N	
68.00	71.00	71	100	N	
71.00	74.00	74	100	N	
74.00	77.00	69	100	N	
77.00	80.00	67	100	N	
80.00	83.00	73	100	N	
83.00	86.00	60	100	N	
86.00	89.00	64	100	N	
89.00	92.00	77	100	N	
92.00	95.00	62	100	N	
95.00	98.00	74	100	N	
98.00	101.00	70	100	N	
101.00	104.00	62	100	N	
104.00	107.00	65	100	N	
107.00	110.00	72	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-15

110.00	113.00	64	100	N	
113.00	116.00	63	100	N	
116.00	119.00	62	100	N	
119.00	122.00	64	100	N	
122.00	123.25	58	100	N	

Detailed Log

Hole Number: **ES2004-16** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Geo Drilling A/S
Date Started:	9/23/2004	Pulse EM Survey:	Y			Logged by:	P. Tirschmann
Date Completed:	9/30/2004	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	9,325,372.15	Local Northing:	5322.14
UTM Easting:	3,731,798.97	Local Easting:	5013.56
Elevation: 967.98			

Collar Dip:	-63.00
Collar Azimuth:	230.00
Length:	182.10

Comments

Purpose: Test UTEM conductor ESP_09_07. Conductivity = 600, 900 Siemens (2 plates)

Result: Hole intersected numerous cm to dm scale mafic/ultramafic zones (dykes?) within anorthositic rocks, a number of which were mineralized containing fracture-controlled, stringer and/or disseminated pyrrhotite±py±cpy. Best mineralization:
121.90-123.90m - UM schist with 5-15% po stringers
127.80-128.80m - UM schist with 25% po-py-cpy stringers & one 5cm massive vein

Assays: 0.32% Ni, <0.0.5% Cu, 0.03% Co / 0.50m (122.90-123.40m)
0.43% Ni, 0.14% Cu, 0.08% Co / 1.00m (127.80-128.80m)

Borehole UTEM: In-hole response centered on 126m with conductance of < 1000 siemens; off-hole response @ 122m and < 10m up-dip and to north of hole (conductance > 1000 siemens). Target not fully tested.

Lithological interpretation: Anorthositic rocks crosscut by narrow mineralized and non-mineralized ultramafic dykes (?), mafic dykes and mafic, alkaline dykes.

Detailed Lithology

From	To		Lithology
0.00	2.00	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
2.00	138.20	**4 Anorthosite / Anorthositic Gabbro**

Coarse grained to very coarse grained mottled and foliated anorthosite and gabbroic anorthosite. Consists of 70-85% white to light grey plagioclase and 15-30% dark green pyroxene. Pyroxenes range in size from 2-20mm, are variably chloritized and are commonly flattened defining foliation. Anorthositic rocks are locally cross-cut by narrow (cm to dm scale) mafic/ultramafic dykes including a) pyroxenite/UM schist b) fg mafic dykes and c) fine grained norite dykes (eg. 71.75-71.90m., 135.4-135.8m).

Between 60m and 138.2m, the unit becomes more inhomogeneous due to the presence of approx. 10% dark green cm to dm scale ultramafic bands (schlieren) and dykes. Ultramafic locally contains fracture-controlled , stringer and/or disseminated po (eg. 63.25-63.35m, 67.2-67.3m, 84.3-84.6m, 92-93m, 117.8-118,8m, 126.4-126.7m).

81-98m: Zone of moderate shearing and deformation. Rocks are strongly foliated and display small-scale folding and crenulation.

Conductivity: Non-conductive
Magnetic susceptibility: < 0.5.

Intepretation: similar setting to P2, P5 & P1 areas with older anorthositic terrain intruded by narrow mineralized ultramafic bodies and younger mafic dykes.

Minor Interval

20.00 20.20 **10f Mafic dykes**
Fine grained dark green mafic dyke with trace po. Contacts at 20° to CA.

Minor Interval

40.00 40.75 **6d Pyroxenite**
Medium grained, dark green pyroxenite dyke containing 5-10% pyrrhotite as coarse fracture controlled blebs and minor disseminations. Trace cp. Contacts irregular.

Minor Interval

93.60 96.40 **10f Mafic dykes**
Fine grained, well foliated to sheared mafic dyke containing trace sulphide. Contacts parallel to foliation.

Minor Interval

121.90 123.90 **6e Ultramafic Schist**
Fine grained, dark green, mineralized, chloritized, serpentinized schist containing 5-15% po stringers. Contacts parallel to foliation.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03207	39.45	40.00	0.55	0.03	0.03	0.01	0.11	0.01	0.01	0.01	0.25
PG03208	40.00	40.75	0.75	0.06	0.08	0.01	2.44	0.01	0.01	0.01	0.25
PG03209	40.75	41.50	0.75	0.03	0.03	0.01	0.04	0.01	0.01	0.01	0.25
PG03210	84.30	84.60	0.30	0.03	0.03	0.03	1.45	0.01	0.01	0.01	0.25
PG03211	92.00	92.40	0.40	0.03	0.03	0.01	1.56	0.01	0.01	0.01	0.25
PG03212	117.80	118.80	1.00	0.03	0.03	0.01	0.39	0.01	0.01	0.01	0.25
PG03213	121.30	121.90	0.60	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25
PG03214	121.90	122.90	1.00	0.08	0.03	0.01	1.33	0.01	0.01	0.01	0.25
PG03215	122.90	123.40	0.50	0.32	0.03	0.03	4.76	0.05	0.01	0.01	0.25
PG03216	123.40	123.90	0.50	0.03	0.03	0.02	0.46	0.01	0.01	0.01	0.25
PG03217	123.90	125.00	1.10	0.03	0.03	0.01	0.14	0.01	0.01	0.01	0.25
PG03218	125.00	126.10	1.10	0.03	0.03	0.03	0.20	0.01	0.01	0.01	0.25
PG03219	126.10	126.90	0.80	0.06	0.03	0.01	0.91	0.01	0.01	0.01	0.25
PG03220	126.90	127.80	0.90	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25
PG03221	127.80	128.80	1.00	0.43	0.14	0.08	10.50	0.06	0.01	0.02	0.25
PG03222	128.80	129.80	1.00	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25
PG03223	131.70	132.60	0.90	0.03	0.03	0.01	0.59	0.01	0.01	0.01	0.25
PG03224	132.60	133.40	0.80	0.03	0.03	0.01	0.45	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Minor Interval

127.80 128.80 **6e Ultramafic Schist**

Fine grained, dark green, mineralized, chloritized, serpentinized schist containing 25% sulphides including: 20% po, 3% py, 2% pn, tr cp in stringers and one 5cm wide massive vein at uphole contact. Pyrite occurs as coarse grains up to 8mm in diameter. Pentlandite is intermixed with po and occurs as grains up to 1mm in diameter.

Contacts parallel to foliation.

Minor Interval

131.70 133.40 **6e Ultramafic Schist**

Fine grained, dark green, mineralized, chloritized, serpentinized schist containing 1% po disseminated and along fractures. Sheared at uphole contact; downhole contact irregular.

Mineralization	40.00	40.75	7.0%	Po	Pyrrhotite
				F	Fracture-Controlled
				7% fracture-controlled po in a pyroxenite dyke	
Mineralization	83.30	84.60	4.0%	Po	Pyrrhotite
				STR	Stringers
				3-5% po stringers in UM dyke	
Mineralization	92.00	92.40	5.0%	Po	Pyrrhotite
				STR	Stringers
				5% po stringers in chloritic UM schist	
Mineralization	117.80	118.80	2.0%	Po	Pyrrhotite
				STR	Stringers
				2% po stringers in UM schist	
Mineralization	123.90	126.10	0.5%	Po	Pyrrhotite
				F	Fracture-Controlled
				Trace to 1% po	
Mineralization	126.10	126.90	3.0%	Po	Pyrrhotite
				STR	Stringers
				3% po stringers and disseminations	
Alteration	2.00	138.20	SE	Sericite	
			F	Fracture-Controlled	
			M	Moderate	
			Patchy to fracture controlled moderate sausseritization/sericitization throughout		
Structure	2.30	2.31	Sm	General Foliation	
Structure	14.30	14.31	Sm	General Foliation	
Structure	38.20	38.21	Sm	General Foliation	
Structure	51.50	51.51	Sm	General Foliation	

Detailed Lithology							Assay Data											
From	To	Lithology					Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Structure	65.20	65.21	Sm	General Foliation												
		Structure	90.10	90.11	Sm	General Foliation												
		Structure	100.00	100.01	Sm	General Foliation												
		Structure	110.10	110.11	Sm	General Foliation												
		Structure	119.90	119.91	Sm	General Foliation												
		Structure	137.30	137.31	Sm	General Foliation												
138.20	153.10	**10f Mafic dykes** Fine grained, massive to very weakly foliated, equigranular mafic dyke consisting of 65% mafic minerals and 35% plagiclase. 1-3% white carbonate veinlets and fracture fillings. Trace po ± py along fractures and disseminated. Uphole contact at 57° to CA; downhole contact at 67° to CA. Conductivity: Non-conductive Magnetic susceptibility: <1 Interpretation: Late mafic dyke.																
153.10	169.70	**4 Anorthosite / Anorthositic Gabbro** Anorthosite and anorthositic gabbro as 2-138.2m. 153.1-160.0m: Grey anorthosite 160-169.7m: White and green anorthositic gabbro with striped and granulated appearance due to shearing and tectonism. Non-conductive. Magnetic susceptibilities typically < 1.																
		Structure	154.20	154.21	Sm	General Foliation												
		Structure	161.80	161.81	Sm	General Foliation												
169.70	182.10	**8f Aphanitic UM Dyke** Very fine grained, dark grey, magnetic ultramafic dyke or body resembling narrower dykes intersected in Jorstad holes ES2004-14 and 15. Pyroxenitic in composition?(Whole rock sample taken: 180.1-180.3m, PG03226). Uphole contact sharp and chilled at 50° to CA. Non-conductive. Magnetic susceptibility averages 15-20. NOTE: Whole rocks sample PG03226 (180.10-180.30m) yielded a composition similar to an alkaline olivine basalt suggesting the dyke is mafic (versus ultramafic) and of alkaline affinity.					PG03226	180.10	180.30	0.20	0.03	0.03	0.01	0.19	0.01	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2004-16

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03207	39.45	40.00	0.55	0.03	0.03	0.01	0.11	0.01	0.01	0.01	0.25																
PG03208	40.00	40.75	0.75	0.06	0.08	0.01	2.44	0.01	0.01	0.01	0.25																
PG03209	40.75	41.50	0.75	0.03	0.03	0.01	0.04	0.01	0.01	0.01	0.25																
PG03210	84.30	84.60	0.30	0.03	0.03	0.03	1.45	0.01	0.01	0.01	0.25																
PG03211	92.00	92.40	0.40	0.03	0.03	0.01	1.56	0.01	0.01	0.01	0.25																
PG03212	117.80	118.80	1.00	0.03	0.03	0.01	0.39	0.01	0.01	0.01	0.25																
PG03213	121.30	121.90	0.60	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25																
PG03214	121.90	122.90	1.00	0.08	0.03	0.01	1.33	0.01	0.01	0.01	0.25																
PG03215	122.90	123.40	0.50	0.32	0.03	0.03	4.76	0.01	0.05	0.01	0.25																
PG03216	123.40	123.90	0.50	0.03	0.03	0.02	0.46	0.01	0.01	0.01	0.25																
PG03217	123.90	125.00	1.10	0.03	0.03	0.01	0.14	0.01	0.01	0.01	0.25																
PG03218	125.00	126.10	1.10	0.03	0.03	0.03	0.20	0.01	0.01	0.01	0.25																
PG03219	126.10	126.90	0.80	0.06	0.03	0.01	0.91	0.01	0.01	0.01	0.25																
PG03220	126.90	127.80	0.90	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25																
PG03221	127.80	128.80	1.00	0.43	0.14	0.08	10.50	0.02	0.06	0.01	0.25																
PG03222	128.80	129.80	1.00	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25																
PG03223	131.70	132.60	0.90	0.03	0.03	0.01	0.59	0.01	0.01	0.01	0.25																
PG03224	132.60	133.40	0.80	0.03	0.03	0.01	0.45	0.01	0.01	0.01	0.25																
PG03226	180.10	180.30	0.20	0.03	0.03	0.01	0.19	0.01	0.01	0.01	0.25			50.90	12.70	16.60	4.13	7.77	3.16	1.69	2.67	0.44	0.25	0.01	0.11	0.27	100.10

Espedalen - Conductivity

Hole Number: ES2004-16

Depth	Conductivity (Siemens)	COMMENTS
84.30	100.00	
84.50	37.00	
92.20	220.00	
92.30	33.00	
118.10	48.00	
118.60	26.00	
122.05	25.00	
122.25	85.00	
122.50	57.00	
123.30	619.00	
126.80	38.00	
127.80	999.00	1700 in 5cm wide massive po vein
128.10	585.00	
128.30	25.00	
128.60	210.00	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-16

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
2.50	0.25	
3.50	0.29	
4.50	0.31	
5.50	0.18	
6.50	0.23	
7.50	0.05	
8.50	0.09	
9.50	0.07	
10.50	0.10	
11.50	0.11	
12.50	0.07	
13.50	0.15	
14.50	0.05	
15.50	0.04	
16.50	0.07	
17.50	0.08	
18.50	0.09	
19.50	0.06	
20.50	0.03	
21.50	0.03	
22.50	0.34	
23.50	0.28	
24.50	0.18	
25.50	0.07	
26.50	0.06	
27.50	0.08	
28.50	0.08	
29.50	0.01	
30.50	0.09	
31.50	0.12	
32.50	0.04	
33.50	0.06	
34.50	0.09	
35.50	0.01	
36.50	0.03	
37.50	0.01	
38.50	0.24	
39.50	0.08	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-16

40.50	9.10	
41.50	0.37	
42.50	0.06	
43.50	0.03	
44.50	0.03	
45.50	0.17	
46.50	0.05	
47.50	0.01	
48.50	0.04	
49.50	0.08	
50.50	0.13	
51.50	0.03	
52.50	0.33	
53.50	0.09	
54.50	0.07	
55.50	0.02	
56.50	0.01	
57.50	0.04	
58.50	0.05	
59.50	0.01	
60.50	0.01	
61.50	0.02	
62.50	0.01	
63.50	0.04	
64.50	0.03	
65.50	0.08	
66.50	0.01	
67.50	0.08	
68.50	0.05	
69.50	0.07	
70.50	0.09	
71.50	0.03	
72.50	0.04	
73.50	0.05	
74.50	0.01	
75.50	0.05	
76.50	0.01	
77.50	0.03	
78.50	0.04	
79.50	0.05	
80.50	0.05	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-16

81.50	0.06	
82.50	0.13	
83.50	0.01	
84.50	0.36	
85.50	0.06	
86.50	0.01	
87.50	0.03	
88.50	0.01	
89.50	0.03	
90.50	0.02	
91.50	0.03	
92.50	0.01	
93.50	0.20	
94.50	0.69	
95.50	0.01	
96.50	0.24	
97.50	0.04	
98.50	0.07	
99.50	0.07	
100.50	0.33	
101.50	0.23	
102.50	0.02	
103.50	0.04	
104.50	0.06	
105.50	0.03	
106.50	0.06	
107.50	0.33	
108.50	0.04	
109.50	0.12	
110.50	0.03	
111.50	0.08	
112.50	0.08	
113.50	0.08	
114.50	0.09	
115.50	0.03	
116.50	0.05	
117.50	0.04	
118.50	0.16	
119.50	0.05	
120.50	0.18	
121.50	0.08	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-16

122.50	0.26	
123.50	0.06	
124.50	0.21	
125.50	0.06	
126.50	0.12	
127.50	0.18	
128.50	0.37	
129.50	0.02	
130.50	0.08	
131.50	0.13	
132.50	0.35	
133.50	0.21	
134.50	0.05	
135.50	0.12	
136.50	0.08	
137.50	0.10	
138.50	0.44	
139.50	0.62	
140.50	1.23	
141.50	0.61	
142.50	1.51	
143.50	0.34	
144.50	0.24	
145.50	0.23	
146.50	0.15	
147.50	0.55	
148.50	0.13	
149.50	0.01	
150.50	0.20	
151.50	0.35	
152.50	0.08	
153.50	0.62	
154.50	0.26	
155.50	0.18	
156.50	0.11	
157.50	0.06	
158.50	0.09	
159.50	0.24	
160.50	0.08	
161.50	1.23	
162.50	0.17	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-16

163.50	0.04	
164.50	0.20	
165.50	0.05	
166.50	0.30	
167.50	1.55	
168.50	0.52	
169.50	0.69	
170.50	0.59	
171.50	2.80	
172.50	17.10	
173.50	2.19	
174.50	10.30	
175.50	21.60	
176.50	7.21	
177.50	5.37	
178.50	1.05	
179.50	1.11	
180.50	4.66	
181.50	13.00	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-16

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
2.00	5.00	44	100	N	
5.00	8.00	42	100	N	
8.00	11.00	80	100	N	
11.00	14.00	64	100	N	
14.00	17.00	67	100	N	
17.00	20.00	84	100	N	
20.00	23.00	59	100	N	
23.00	26.00	56	100	N	
26.00	29.00	70	100	N	
29.00	32.00	52	100	N	Broken core 29.5 - 29.7m
32.00	35.00	58	100	N	
35.00	38.00	69	100	N	
38.00	41.00	75	100	N	
41.00	44.00	84	100	N	
44.00	47.00	77	100	N	
47.00	50.00	83	100	N	
50.00	53.00	69	100	N	
53.00	56.00	63	100	N	
56.00	59.00	72	100	N	
59.00	62.00	70	100	N	
62.00	65.00	64	100	N	
65.00	68.00	87	100	N	
68.00	71.00	62	100	N	
71.00	74.00	79	100	N	
74.00	77.00	76	100	N	
77.00	80.00	91	100	N	
80.00	83.00	36	100	N	Broken core 82.3 - 83m
83.00	86.00	78	100	N	
86.00	89.00	79	100	N	
89.00	92.00	75	100	N	
92.00	95.00	54	100	N	
95.00	98.00	85	100	N	Broken core 95.7 - 95.8m
98.00	101.00	91	100	N	
101.00	104.00	62	100	N	
104.00	107.00	80	100	N	
107.00	110.00	73	100	N	
110.00	113.00	72	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-16

113.00	116.00	87	100	N	
116.00	119.00	60	100	N	
119.00	122.00	57	100	N	
122.00	125.00	59	100	N	
125.00	128.00	34	100	N	
128.00	131.00	60	100	N	Broken core 128.8m
131.00	134.00	61	100	N	Broken core 131.6 - 131.7m
134.00	137.00	57	100	N	
137.00	140.00	89	100	N	
140.00	143.00	38	100	N	
143.00	146.00	41	100	N	
146.00	149.00	65	100	N	Broken core 147.9 - 148m
149.00	152.00	69	100	N	
152.00	155.00	66	100	N	
155.00	158.00	75	100	N	
158.00	161.00	74	100	N	
161.00	164.00	67	100	N	
164.00	167.00	70	100	N	
167.00	170.00	69	100	N	
170.00	173.00	62	100	N	
173.00	176.00	57	100	N	
176.00	179.00	50	100	N	
179.00	182.10	52	100	N	

Detailed Log

Hole Number: **ES2004-17** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Geo Drilling A/S
		Pulse EM Survey:	Y				
Date Started:	9/23/2004	Casing:	Left in Hole, capped				
Date Completed:	9/26/2004	Location:	Surface			Logged by:	P. Tirschmann

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,805,293.92	Local Northing:	1830.11
UTM Easting:	530,243.62	Local Easting:	5198.72
Elevation:	1118.54		

Collar Dip:	-46.00
Collar Azimuth:	230.00
Length:	94.20

Comments

Purpose: Test UTEM conductor ESP_04_01. Conductivity = 2000 Siemens

Result: Intersected mm to cm scale veins and stringers of massive po±pn,py,cpy between 57m and 60m. Ultramafic clasts/groundmass is locally associated with the mineralization.

Assays: 0.38% Ni, 0.35% Cu, 0.03% Co / 0.30m (58.80-59.10m)
0.68% Ni, 0.30% Cu, 0.08% Co / 0.30m (59.65-59.95m)

Borehole UTEM: Symmetric in-hole response centered at 60m, high conductance (Ch1) anomaly.

Lithological interpretation: Anorthositic terrain intruded by narrow, locally mineralized, ultramafic bodies as well as mafic dykes.

Detailed Lithology / **Assay Data**

From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
0.00	1.50	**C Casing**												
1.50	20.20	**6b Peridotite** Medium grained, massive to weakly foliated, dark grey to black peridotite. Consists of 60-80% dark green olivine, 20-40% light grey (altered?) intercumulusand locally oikocrystic pyroxene, 1-3% very fine grained magnetite and trace fine grained sulphide. Unit is transitional to pyroxenite downhole of 17m and is highly chloritized and schistose adjacent to downhole contact (18.7-20.2m). Downhole contact sharp at 75° to CA. Conductivity: Non-conductive Magnetic susceptibility: 15-85, average = 30; becomes less magnetic downhole; approx. =2.5 in schistose UM near downhole contact. **Structure** 12.85 12.86 Sm General Foliation **Structure** 18.95 18.96 Sm General Foliation	PG03194	9.20	9.33	0.13	0.10	0.03	0.01	0.15	0.01	0.01	0.02	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
20.20	24.05	**10f Mafic dykes** Fine grained, dark green, equigranular mafic dyke. Consists of 70-80% green mafic minerals and 20-30% interstitial light green micaceous mineral (sericite/sausserite?). Trace sulphides along fractures. Uphole and downhole contacts very fine grained to chilled; small UM clast obeserved in dyke near uphole contact; downhole contact at 85° to CA. Non-conductive. Magnetic susceptibility: 0.8-1.9												
24.05	27.35	**6 Undivided Ultramafic Intrusive** Fine grained, dark green, serpentinized, chloritized phlogopite-bearing ultramafic. Trace fine grained sulphides. Downhole contact gradational over several cms. Magnetic susceptibility <0.5.												
27.35	30.05	**4 Anorthosite / Anorthositic Gabbro** Strongly foliated, sheared anorthositic gabbro consisting of 50-55 % white plagioclase, 30-35% green mafic minerals and 5-15% pale green sericite (?). Locally contains mm to cm scale bands of altered UM as immediately uphole. Non-conductive. Magnetic susceptibility: <0.5 Interpretation: Lithology is difficult to identify in drillcore, but transition from more massive to progressively more sheared anorthositic gabbro can be seen in outcrop at surface in immediate area of drillhole. **Structure** 29.80 29.81 Sm General Foliation												
30.05	41.35	**10f Mafic dykes** Fine grained, light green, highly foliated (sheared) mafic dyke similar to 20.2-24.05m but more tectonized. Quartz veining at 40.5m. Contacts are concordant to foliation and downhole contact with anorthositic gabbro is very difficult to distinguish due to shearing and similar composition. Non-conductive. Magnetic susceptibility: <0.5 **Minor Interval** 31.65 32.10 **4 Anorthosite / Anorthositic Gabbro** Block of anorthositic gabbro in mafic dyke? Mafic unit is fine grained and appears chilled against uphole contact of anorthositic gabbro. **Structure** 38.20 38.21 Sm General Foliation												

Detailed Lithology

From	To	Lithology
41.35	76.70	**4 Anorthosite / Anorthositic Gabbro** Fine to medium grained, foliated, white and green anorthositic gabbro with "striped" appearance due to shearing. Consists of 50-55% white plagioclase, 30-35% green mafic minerals, 5-15% pale green sericite and 1-3 % dark green chlorite. Locally cross-cut by fine grained, green mafic dykes but contacts are concordant to foliation/shearing (eg. 45.1-45.25m, 46.3-46.85m, 46.95-47.10m). 57-60m: mm to cm scale veins and stringers of massive po ± pn,py and cp cross-cut the anorthositic gabbros and locally contain a small amount of ultramafic as groundmass or clasts (see mineralization). 59.3m: 1cm wide zone of fault gouge NOTE: Degree of shearing decreases downhole. Most intense zone of shearing appears to be between 50m and 51.3m. Non-conductive. Magnetic susceptibility: <0.5. **Minor Interval** 67.20 67.90 **6d Pyroxenite** Medium grained green pyroxenite dyke containing trace po. Uphole contact sheared; downhole contact gradational over several cms. **Mineralization** 57.85 58.30 8.0% Po Pyrrhotite VN Veined 5-10% po in veinlets up to 6mm in width **Mineralization** 58.80 59.10 35.0% Po Pyrrhotite VN Veined Massive po veins/stringers up to 3cm wid cp locally; tr pn (?) as 0.5 mm rounded eyes in massive po at 58.93m. **Mineralization** 59.10 59.65 5.0% Po Pyrrhotite STR Stringers 5% po, tr py in 1-3mm wide foliation paral stringers **Mineralization** 59.65 59.95 65.0% Po Pyrrhotite VN Veined 60-65% po in massive veins/stringers up t 10cm wide; 3-4% pn as 0.5-1mm eyes an as fine grained margins to massive po vei from 59.85m-59.95m; 1-2% py as individu grains up to several mm in diameter. **Mineralization** 59.95 60.50 2.0% Po Pyrrhotite STR Stringers 2% po in 1-3mm wide foliation parallel stringers.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03195	56.00	57.00	1.00	0.03	0.03	0.01	0.24	0.01	0.01	0.01	0.25
PG03196	57.00	57.85	0.85	0.03	0.03	0.02	0.37	0.01	0.01	0.01	0.25
PG03197	57.85	58.30	0.45	0.09	0.03	0.01	2.70	0.01	0.01	0.02	0.25
PG03198	58.30	58.80	0.50	0.03	0.05	0.01	0.25	0.01	0.01	0.01	0.25
PG03199	58.80	59.10	0.30	0.38	0.35	0.03	10.80	0.01	0.07	0.01	0.60
PG03201	59.10	59.65	0.55	0.08	0.08	0.01	2.18	0.01	0.01	0.01	0.25
PG03202	59.65	59.95	0.30	0.68	0.30	0.08	22.10	0.05	0.04	0.03	1.00
PG03203	59.95	60.50	0.55	0.03	0.03	0.01	1.01	0.01	0.01	0.01	0.25
PG03204	60.50	61.50	1.00	0.03	0.03	0.01	0.69	0.01	0.01	0.01	0.25

Detailed Lithology			**Assay Data**											
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Structure 49.55 49.56 Sm General Foliation **Structure** 54.30 54.31 Sm General Foliation **Structure** 63.40 63.41 Sm General Foliation **Structure** 74.35 74.36 Sm General Foliation												
76.70	78.30	**6d Pyroxenite** Medium grained, green, foliated, chloritized pyroxenite containing 1-2% phlogopite and trace -1% pyrite. Uphole contact at 75° to CA; downhole contact at 80° to CA.	PG03205	77.30	78.30	1.00	0.08	0.03	0.03	0.44	0.01	0.01	0.01	0.25
78.30	88.55	**10f Mafic dykes** Fine to medium grained, foliated, equigranular, mafic dyke as 20.2-24.05m and 30.05-41.35m. Consists of 60-70% chloritized pyroxene 30-40% interstitial light green micaceous mineral (sericite/sausserite?). Clast of gabbroic anorthosite from 84.8-85m. Interfingered with gabbroic anorthosite at downhole contact which is concordant with foliation. Non-conductive: Magnetic susceptibility: <0.5 **Structure** 79.30 79.31 Sm General Foliation **Structure** 87.05 87.06 Sm General Foliation												
88.55	94.20	**4 Anorthosite / Anorthositic Gabbro** Medium grained, foliated green and white gabbroic anorthosite. Narrow Um dyke containing 2% po between 88.8 and 88.9m. **Mineralization** 88.80 88.90 2.0% Po Pyrrhotite F Fracture-Controlled 2-3% po in foliation parallel fractures in Ul **Structure** 93.80 93.81 Sm General Foliation	PG03206	88.80	88.90	0.10	0.03	0.03	0.01	1.58	0.01	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2004-17

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03194	9.20	9.33	0.13	0.10	0.03	0.01	0.15	0.02	0.01	0.01	0.25			39.10	5.70	13.60	28.60	4.15	0.24	0.03	0.26	0.02	0.18	0.45	0.02	8.32	100.60
PG03195	56.00	57.00	1.00	0.03	0.03	0.01	0.24	0.01	0.01	0.01	0.25																
PG03196	57.00	57.85	0.85	0.03	0.03	0.02	0.37	0.01	0.01	0.01	0.25																
PG03197	57.85	58.30	0.45	0.09	0.03	0.01	2.70	0.02	0.01	0.01	0.25																
PG03198	58.30	58.80	0.50	0.03	0.05	0.01	0.25	0.01	0.01	0.01	0.25																
PG03199	58.80	59.10	0.30	0.38	0.35	0.03	10.80	0.01	0.01	0.07	0.60																
PG03201	59.10	59.65	0.55	0.08	0.08	0.01	2.18	0.01	0.01	0.01	0.25																
PG03202	59.65	59.95	0.30	0.68	0.30	0.08	22.10	0.03	0.05	0.04	1.00																
PG03203	59.95	60.50	0.55	0.03	0.03	0.01	1.01	0.01	0.01	0.01	0.25																
PG03204	60.50	61.50	1.00	0.03	0.03	0.01	0.69	0.01	0.01	0.01	0.25																
PG03205	77.30	78.30	1.00	0.08	0.03	0.03	0.44	0.01	0.01	0.01	0.25																
PG03206	88.80	88.90	0.10	0.03	0.03	0.01	1.58	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2004-17

Depth	Conductivity (Siemens)	COMMENTS
57.90	88.00	
58.05	144.00	
58.20	74.00	
59.00	999.00	1058
59.45	86.00	
59.75	999.00	1330
59.90	999.00	3385

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-17

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
1.50	37.70	
2.50	61.20	
3.50	62.00	
4.50	56.20	
5.50	38.60	
6.50	71.00	
7.50	21.00	
8.50	49.70	
9.50	17.60	
10.50	23.20	
11.50	77.00	
12.50	83.00	
13.50	32.40	
14.50	17.50	
15.50	31.20	
16.50	36.10	
17.50	26.30	
18.50	2.78	
19.50	2.46	
20.50	1.86	
21.50	1.10	
22.50	0.86	
23.50	0.85	
24.50	0.27	
25.50	0.42	
26.50	0.42	
27.50	0.08	
28.50	0.25	
29.50	0.27	
30.50	0.15	
31.50	0.34	
32.50	0.05	
33.50	0.16	
34.50	0.18	
35.50	0.21	
36.50	0.21	
37.50	0.18	
38.50	0.03	

Espedalen - Magnetic Susceptibility

Hole Number: ES2004-17

39.50	0.02	
40.50	0.15	
41.50	0.29	
42.50	0.15	
43.50	0.12	
44.50	0.21	
45.50	0.24	
46.50	0.27	
47.50	0.12	
48.50	0.26	
49.50	0.19	
50.50	0.07	
51.50	0.22	
52.50	0.46	
53.50	0.03	
54.50	0.10	
55.50	0.03	
56.50	0.05	
57.50	0.04	
58.50	0.37	
59.50	0.47	
60.50	0.25	
61.50	0.28	
62.50	0.03	
63.50	0.09	
64.50	0.05	
65.50	0.11	
66.50	0.32	
67.50	0.05	
68.50	0.28	
69.50	0.05	
70.50	0.08	
71.50	0.03	
72.50	0.31	
73.50	0.07	
74.50	0.03	
75.50	0.02	
76.50	0.14	
77.50	0.39	
78.50	0.19	
79.50	0.06	

Espedalen - Magnetic Susceptibility		Hole Number: ES2004-17
80.50	0.06	
81.50	0.28	
82.50	0.14	
83.50	0.12	
84.50	0.36	
85.50	0.55	
86.50	0.07	
87.50	0.27	
88.50	0.07	
89.50	0.07	
90.50	0.11	
91.50	0.10	
92.50	0.23	
93.50	0.01	

Espedalen - Rock Quality (RQD)

Hole Number: ES2004-17

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
1.50	4.00	41	100	N	
4.00	7.00	48	100	N	
7.00	10.00	52	100	N	
10.00	13.00	37	95	N	
13.00	16.00	41	100	N	Badly broken core: 13.5m; broken core: 14.3 - 14.7m
16.00	19.00	57	100	N	
19.00	22.00	49	100	N	
22.00	25.00	63	100	N	
25.00	28.00	39	100	N	
28.00	31.00	49	100	N	
31.00	34.00	47	100	N	
34.00	37.00	76	100	N	
37.00	40.00	90	100	N	
40.00	43.00	87	100	N	
43.00	46.00	77	100	N	
46.00	49.00	78	100	N	
49.00	52.00	36	100	N	
52.00	55.00	32	100	N	
55.00	58.00	29	100	N	
58.00	61.00	13	100	N	
61.00	64.00	3	100	N	Badly broken core: 63.7 - 64.85m (photos)
64.00	67.00	14	100	N	Badly broken core: 65.5 - 65.7m
67.00	70.00	36	100	N	
70.00	73.00	37	100	N	
73.00	76.00	38	100	N	
76.00	79.00	71	100	N	
79.00	82.00	87	100	N	
82.00	85.00	76	100	N	
85.00	88.00	95	100	N	
88.00	91.00	96	100	N	
91.00	94.20	82	100	N	

2005 Winter Drilling
Stormyra Zone

Detailed Log

Hole Number: **ES2005-18** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	UTM WGS 84 Coord	Local Coord	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	UTM Northing: 9,325,372.15	Local Northing: 3105.00	Contractor:	Arctic Drilling A/S
Date Started:	3/4/2005	Pulse EM Survey:	Y			UTM Easting: 3,731,798.97	Local Easting: 1600.00	Logged by:	Trevor Blair
Date Completed:	3/7/2005	Casing:	Left in Hole, capped			Elevation: 967.98			
		Location:	Surface						

Collar Dip: -81.00
Collar Azimuth: 230.00
Length: 171.00

Comments

Purpose: Test 30m down-dip toe on mineralization intersected in hole ES2004-09 (1.74%Ni, 0.79%Cu, 0.06%Co / 14.60m (80.40-96.00m)).

Result: No mineralization intersected.

Borehole UTEM: Off-hole reponse @ 100m with conductor edge approximately 10m away from hole.

Detailed Lithology

From	To		Lithology
0.00	13.10	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
13.10	65.40	**4s Sausseritized/Tectonized Anorthosite** Medium grained, white and green, mottled, well foliated, non-magnetic, unmineralized tectonized anorthosite. This unit contains 50-75% plagioclase (white to pale green - variable intensity of sausseritization), 15-25% fine grained, pale to apple green alteration mineral (sericite?) and 10% chlorite (locally in mm scale clots). The unit contains m scale crosscutting mafic dykes (see minor units for intervals and contact relationships). These mafic units appear as fine grained, well foliated (70-85tca), dark green, weakly magnetic units composed of 90% chlorite and 10% plagioclase. This unit is unmineralized. The lower contact (chilled) of this unit is sharp along a downhole mafic dyke at 85-90 tca. Chill contact kept as hand specimen. **Minor Interval** 17.05 19.88 **10f Mafic dykes** Upper and lower contacts are perpendicular to ca. See major unit for description. **Minor Interval** 23.00 25.94 **10f Mafic dykes** The upper and lower contacts are sharp at 70 and 65 degrees tca, respectively. See major unit for rock description. **Structure** 33.30 33.31 S1 1st Foliation **Structure** 58.65 58.66 S1 1st Foliation												
65.40	73.31	**10f Mafic dykes** Fine grained, well foliated, pale green-grey, weakly magnetic, homogenous mafic dyke composed of 65-80% chlorite and 20-35% white plagioclase. This unit is unmineralized. The upper contact of this unit is sharp along a chilled contact (8mm halo) and the lower contact is sharp at 70 tca. **Structure** 72.05 72.06 S1 1st Foliation												

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
73.31	171.00	**4s Sausseritized/Tectonized Anorthosite** Medium grained, white-green, non-magnetic, heterogenous, well foliated anorthosite (tectonized, sausseritized). This unit contains approximately 75% white plagioclase with the remaining 25% comprising a mixture of chlorite, sericite, epidote? and a pale green amorphous alteration mineral. This unit is highly tectonized with foliation angles ranging between 60-80 degrees to the ca. Locally (cm to dm scale), quartz flooding occurs. This unit is intruded by dm to m scale mafic dykes, showing mm scale chill contacts. Generally, these contacts are quite sharp and core axis angles are quite regular. Irregular contacts are noted and are located in minor units. This unit is unmineralized. The lower contact of this unit is unknown as drilling was terminated. **Minor Interval** 99.12 100.57 **10f Mafic dykes** Upper and lower contacts are sharp at 60 and 80 degrees to the ca, respectively. **Minor Interval** 118.26 118.51 **10f Mafic dykes** Upper and lower contacts are sharp at 75 and 70 degrees to the ca, respectively. **Minor Interval** 120.94 121.27 **10f Mafic dykes** Upper and lower contacts are sharp but irregular. **Minor Interval** 135.89 137.60 **10f Mafic dykes** Upper and lower contacts are sharp at 75 and 60 degrees to the ca, respectively. **Minor Interval** 138.16 138.49 **10f Mafic dykes** Upper and lower contacts are sharp at 70 and 65 degrees to the ca, respectively. **Minor Interval** 155.00 157.80 **10f Mafic dykes** Upper and lower contacts are sharp at 50 and 60 degrees to the ca, respectively. **Minor Interval** 165.70 167.62 **10f Mafic dykes** Upper and lower contacts are both sharp at 80 degrees to the ca.											

Detailed Lithology					Assay Data											
From	To	Lithology			Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Minor Interval														
168.80	169.86	**10f Mafic dykes** Upper and lower contacts are sharp at 75 and 70 degrees to the ca. respectively.														
Alteration		83.50	88.16	HM BN M	Hematite Banded Moderate											
Alteration		114.90	121.22	HM BN M	Hematite Banded Moderate											
Structure		88.25	88.26	S1	1st Foliation											
Structure		108.15	108.16	S1	1st Foliation											
Structure		112.70	112.71	S1	1st Foliation											
Structure		134.60	134.61	S1	1st Foliation											
Structure		163.75	163.76	S1	1st Foliation											
Structure		170.50	170.51	S1	1st Foliation											

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-18

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
13.00	0.19	
14.00	0.16	
15.00	0.17	
16.00	0.16	
17.00	0.14	
18.00	0.42	
19.00	0.56	
20.00	0.17	
21.00	0.16	
22.00	0.21	
23.00	0.40	
24.00	0.37	
25.00	0.49	
26.00	0.08	
27.00	0.13	
28.00	0.14	
29.00	0.19	
30.00	0.16	
31.00	0.15	
32.00	0.18	
33.00	0.13	
34.00	0.19	
35.00	0.14	
36.00	0.13	
37.00	0.06	
38.00	0.25	
39.00	0.14	
40.00	0.13	
41.00	0.26	
42.00	0.19	
43.00	0.33	
44.00	0.02	
45.00	0.03	
46.00	0.08	
47.00	0.05	
48.00	0.06	
49.00	0.06	
50.00	0.16	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-18

51.00	0.16	
52.00	0.14	
53.00	0.11	
54.00	0.10	
55.00	0.18	
56.00	0.15	
57.00	0.16	
58.00	0.16	
59.00	0.15	
60.00	0.19	
61.00	0.12	
62.00	0.16	
63.00	0.18	
64.00	0.14	
65.00	0.17	
66.00	0.57	
67.00	0.62	
68.00	0.42	
69.00	0.18	
70.00	0.41	
71.00	0.36	
72.00	0.37	
73.00	0.35	
74.00	0.22	
75.00	0.13	
76.00	0.17	
77.00	0.28	
78.00	0.12	
79.00	0.20	
80.00	0.29	
81.00	0.27	
82.00	0.27	
83.00	0.42	
84.00	0.24	
85.00	0.19	
86.00	0.19	
87.00	0.19	
88.00	0.11	
89.00	0.06	
90.00	0.03	
91.00	0.08	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-18

92.00	0.06	
93.00	0.30	
94.00	0.19	
95.00	0.12	
96.00	0.13	
97.00	0.08	
98.00	0.10	
99.00	0.34	
100.00	0.45	
101.00	0.12	
102.00	0.16	
103.00	0.13	
104.00	0.18	
105.00	0.17	
106.00	0.76	
107.00	0.76	
108.00	0.17	
109.00	0.17	
110.00	0.16	
111.00	0.32	
112.00	0.36	
113.00	0.15	
114.00	0.10	
115.00	0.08	
116.00	0.19	
117.00	0.10	
118.00	0.70	
119.00	0.06	
120.00	0.17	
121.00	0.42	
122.00	0.04	
123.00	0.05	
124.00	0.10	
125.00	0.13	
126.00	0.11	
127.00	0.13	
128.00	0.08	
129.00	0.09	
130.00	0.03	
131.00	0.10	
132.00	0.04	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-18

133.00	0.16	
134.00	0.10	
135.00	0.06	
136.00	0.41	
137.00	0.50	
138.00	0.05	
139.00	0.05	
140.00	0.11	
141.00	0.14	
142.00	0.11	
143.00	0.06	
144.00	0.07	
145.00	0.08	
146.00	0.05	
147.00	0.03	
148.00	0.07	
149.00	0.04	
150.00	0.25	
151.00	0.03	
152.00	0.08	
153.00	0.05	
154.00	0.11	
155.00	0.46	
156.00	0.48	
157.00	0.50	
158.00	0.04	
159.00	0.04	
160.00	0.08	
161.00	0.04	
162.00	0.06	
163.00	0.67	
164.00	0.08	
165.00	0.10	
166.00	0.61	
167.00	0.29	
168.00	0.20	
169.00	0.29	
170.00	0.17	
171.00	0.01	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-18

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
13.10	15.00	74	100	N	
15.00	18.00	72	100	N	
18.00	21.00	78	100	N	
21.00	24.00	60	100	N	
24.00	27.00	27	100	N	
27.00	30.00	64	100	N	
30.00	33.00	68	100	N	
33.00	36.00	88	100	N	
36.00	39.00	85	100	N	
39.00	42.00	83	100	N	
42.00	45.00	95	100	N	
45.00	48.00	100	100	N	
48.00	51.00	100	100	N	
51.00	54.00	100	100	N	
54.00	57.00	100	100	N	
57.00	60.00	100	100	N	
60.00	63.00	82	100	N	
63.00	66.00	95	100	N	
66.00	69.00	88	100	N	
69.00	72.00	85	100	N	
72.00	75.00	82	100	N	
75.00	78.00	93	100	N	
78.00	81.00	94	100	N	
81.00	84.00	92	100	N	
84.00	87.00	55	100	N	
87.00	90.00	62	100	N	
90.00	93.00	81	100	N	
93.00	96.00	100	100	N	
96.00	99.00	95	100	N	
99.00	102.00	97	100	N	
102.00	105.00	93	100	N	
105.00	108.00	94	100	N	
108.00	111.00	92	100	N	
111.00	114.00	100	100	N	
114.00	117.00	98	100	N	
117.00	120.00	82	100	N	
120.00	123.00	87	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-18

123.00	126.00	90	100	N	
126.00	129.00	95	100	N	
129.00	132.00	85	100	N	
132.00	135.00	83	100	N	
135.00	138.00	81	100	N	
138.00	141.00	83	100	N	
141.00	144.00	61	100	N	
144.00	147.00	72	100	N	
147.00	150.00	74	100	N	
150.00	153.00	86	100	N	
153.00	156.00	78	100	N	
156.00	159.00	98	100	N	
159.00	162.00	100	100	N	
162.00	165.00	96	100	N	
165.00	168.00	58	100	N	
168.00	171.00	84	100	N	

Detailed Log

Hole Number: **ES2005-19** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	3/8/2005	Pulse EM Survey:	Y			Logged by:	Trevor Blair
Date Completed:	3/10/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,174.10	Local Northing:	3050.00
UTM Easting:	535,292.40	Local Easting:	1600.00
Elevation: 974.09			

Collar Dip:	-81.38
Collar Azimuth:	243.59
Length:	125.35

Comments

Purpose: Test 25m up-dip toe on mineralization intersected in hole ES2004-09 (1.74%Ni, 0.79%Cu, 0.06%Co / 14.60m (80.40-96.00m)).

Result: Intersected 25% stringer sulphides (po-pn-cpy) within a sheared ultramafic from 65.93-67.27m (1.34m) and a 20cm wide massive sulphide veinlet from 95.15-95.35m.

Assays: 2.67%Ni, 1.57%Cu, 0.07%Co / 0.82m (65.93-66.75m)
4.12%Ni, 0.60%Cu, 0.13%Co / 0.20m (95.15-95.35m)

Borehole UTEM: In-hole edge responses @ 67m & 88m. Response at 67m correlated with intersected mineralization.

Detailed Lithology

From	To		Lithology
0.00	7.25	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
7.25	35.75	**4s Sausseritized/Tectonized Anorthosite** Medium grained, highly tectonized, white-green, non-magnetic, heterogenous anorthosite. This unit contains patchy to pervasive (banded) sausseritization, hematization, epidotization and possibly sericitization. The unit contains 65-80% plagioclase (variably altered) and 20-35% alteration minerals (chlorite, hematite, sericite?, fuchsite?) This unit contains dm to m scale mafic dykes/sills which locally contain xenoliths of country rock (anorthosite). These mafic intervals are generally well foliated, fine grained, light to dark green, homogenous units that are unmineralized. See minor units for intervals as well as contact relationships. The anorthosite is unmineralized. The lower contact of this unit is sharp along a larger mafic dyke/sill perpendicular to the ca. **Minor Interval** 10.44 11.40 **10f Mafic dykes** The upper and lower contacts are at 90 and 75 degrees to the ca, respectively. **Minor Interval** 26.91 27.20 **10f Mafic dykes** The upper and lower contacts are at ~75 (irregular) and 70 degrees to the ca, respectively. **Minor Interval** 27.71 29.75 **10f Mafic dykes** The upper contact is irregular with the lower contact at ~75 (irregular) degrees to the ca. **Minor Interval** 30.53 31.00 **10f Mafic dykes** The upper and lower contacts are at ~60 (irregular) and 90 degrees to the ca, respectively. **Minor Interval** 33.52 33.95 **10f Mafic dykes** The upper and lower contacts are at 90 and 80 (broken contact) degrees to the ca, respectively. **Alteration** 15.58 19.65 HM Hematite BN Banded M Moderate Locally patchy and mottled **Structure** 21.90 21.91 S1 1st Foliation												

Detailed Lithology

From	To	Lithology
35.75	43.00	**10f Mafic dykes** Fine grained, green-grey-red, non-magnetic, homogenous, well foliated mafic dyke composed of chlorite, biotite, pyroxenes and plagiolcase. Strongly banded hematization occurs from 39.18-41.32m with less pervasive hematization occurring between 41.32-43.00m. This unit is unmineralized. The lower contact of this unit is sharp at 55 degrees to the ca. **Alteration** 39.18 41.32 HM Hematite BN Banded S Strong **Alteration** 41.32 43.00 HM Hematite BN Banded W Weak Locally patchy **Structure** 40.45 40.46 S1 1st Foliation
43.00	88.45	**4s Sausseritized/Tectonized Anorthosite** Medium grained, highly tectonized, white-green, non-magnetic, heterogenous anorthosite. This unit contains patchy to pervasive (banded) sausseritization, hematization , epidotization and possibly sericitization. The unit contains 75-85% plagioclase (variably altered) and 15-25% alteration minerals (chlorite, hematite, sericite?, fuchsite?). The anorthosite is unmineralized. The lower contact of this unit is sharp along a larger mafic dyke/sill at 70 degrees to the ca. **Minor Interval** 65.93 67.27 **6e Ultramafic Schist** Highly sheared, irregular, dark green to black, fine grained, moderately to strongly magnetic ultramafic unit composed of serpentine and chlorite. This unit contains dm scale anorthosite xenoliths with irregular, undulating contacts. This unit contains ~15-25% stringer sulphides (pentlandite, chalcopyrite, pyrrhotite) as well as blebby chalcopyrite. The upper contact of this unit is broken but appears at ~20 degrees to the ca. The lower contact of this unit is irregular but ~65 degrees to the ca.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03751	65.10	65.93	0.83	0.24	0.20	0.01	0.62	0.01	0.03	0.01	2.00
PG03752	65.93	66.75	0.82	2.67	1.57	0.07	10.70	0.41	0.20	0.05	2.30
PG03753	66.75	67.27	0.52	0.22	0.12	0.01	1.24	0.01	0.02	0.01	0.60
PG03754	67.27	68.10	0.83	0.14	0.09	0.01	0.61	0.01	0.01	0.01	0.25
PG03914	68.10	69.50	1.40	0.06	0.06	0.01	0.16	0.01	0.01	0.01	0.25
PG03915	69.50	71.00	1.50	0.23	0.10	0.01	1.22	0.01	0.01	0.01	0.25
PG03916	71.00	72.00	1.00	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
88.45	92.87	**10f Mafic dykes** Fine grained, well foliated, grey-green, homogenous, weakly to non-magnetic mafic dyke/sill composed of chlorite and plagioclase +- minor amounts of biotite. This unit is unmineralized. The upper and lower contacts of this unit are sharp at 70 and 80 degrees to the ca, respectively. **Structure** 88.90 88.91 S1 1st Foliation												
92.87	125.35	**4s Sausseritized/Tectonized Anorthosite** Medium grained, well foliated, non-magnetic, white-green-red, heterogenous anorthosite. This unit contains variably altered (sausseritized, epidotized, hematized) plagioclase. This unit contains <5% mafic injection as dm scale dykes/sills (see minor units for contact relationships and inhole intervals). This unit is unmineralized. The lower contact of this unit is unknown as the hole was stopped. **Minor Interval** 120.65 121.57 **8e Pyroxenite** Fine grained, dark green, well foliated, weakly to non-magnetic, homogenous ultramafic dyke/sill composed of serpentine, chlorite and +- plagioclase. This unit is unmineralized. The upper and lower contacts of this unit are sharp at 70 and 85 degrees to the ca, respectively. **Mineralization** 95.15 95.35 7.0% Pn Pentlandite EY Eyes **Mineralization** 95.15 95.35 93.0% Po Pyrrhotite VN Veined **Structure** 99.15 99.16 S1 1st Foliation **Structure** 115.15 115.16 S1 1st Foliation	PG03755	93.75	95.15	1.40	0.03	0.03	0.01	0.04	0.01	0.09	0.01	0.25
			PG03756	95.15	95.35	0.20	4.12	0.60	0.13	21.10	0.16	0.10	0.04	0.80
			PG03757	95.35	96.75	1.40	0.03	0.03	0.01	0.11	0.01	0.01	0.02	0.80

Espedalen - Analysis

Hole Number: ES2005-19

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03751	65.10	65.93	0.83	0.24	0.20	0.01	0.62	0.01	0.01	0.03	2.00																
PG03752	65.93	66.75	0.82	2.67	1.57	0.07	10.70	0.05	0.41	0.20	2.30																
PG03753	66.75	67.27	0.52	0.22	0.12	0.01	1.24	0.01	0.01	0.02	0.60																
PG03754	67.27	68.10	0.83	0.14	0.09	0.01	0.61	0.01	0.01	0.01	0.25																
PG03914	68.10	69.50	1.40	0.06	0.06	0.01	0.16	0.01	0.01	0.01	0.25																
PG03915	69.50	71.00	1.50	0.23	0.10	0.01	1.22	0.01	0.01	0.01	0.25																
PG03916	71.00	72.00	1.00	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG03755	93.75	95.15	1.40	0.03	0.03	0.01	0.04	0.01	0.01	0.09	0.25																
PG03756	95.15	95.35	0.20	4.12	0.60	0.13	21.10	0.04	0.16	0.10	0.80																
PG03757	95.35	96.75	1.40	0.03	0.03	0.01	0.11	0.02	0.01	0.01	0.80																

Espedalen - Conductivity

Hole Number: ES2005-19

Depth	Conductivity (Siemens)	COMMENTS
66.00	800.00	Cut core
66.55	500.00	Cut core
95.15	999.00	C=2600S - cut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-19

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
8.00	0.19	
9.00	0.21	
10.00	0.13	
11.00	0.34	
12.00	0.12	
13.00	0.22	
14.00	0.07	
15.00	0.04	
16.00	0.15	
17.00	0.17	
18.00	0.05	
19.00	0.19	
20.00	0.03	
21.00	0.06	
22.00	0.09	
23.00	0.12	
24.00	0.19	
25.00	0.19	
26.00	0.17	
27.00	0.63	
28.00	0.59	
29.00	0.42	
30.00	0.17	
31.00	0.15	
32.00	0.04	
33.00	0.07	
34.00	0.07	
35.00	0.13	
36.00	0.44	
37.00	0.53	
38.00	0.73	
39.00	0.49	
40.00	0.47	
41.00	0.43	
42.00	0.43	
43.00	0.14	
44.00	0.07	
45.00	0.05	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-19
46.00	0.06	
47.00	0.08	
48.00	0.21	
49.00	0.04	
50.00	0.09	
51.00	0.04	
52.00	0.19	
53.00	0.03	
54.00	0.06	
55.00	0.03	
56.00	0.04	
57.00	0.18	
58.00	0.05	
59.00	0.13	
60.00	0.40	
61.00	0.07	
62.00	0.14	
63.00	0.08	
64.00	0.08	
65.00	0.31	
66.00	16.50	
67.00	0.57	
68.00	0.54	
69.00	0.15	
70.00	0.16	
71.00	0.08	
72.00	0.06	
73.00	0.10	
74.00	0.08	
75.00	0.03	
76.00	0.05	
77.00	0.05	
78.00	0.07	
79.00	0.10	
80.00	0.08	
81.00	0.07	
82.00	0.17	
83.00	0.18	
84.00	0.09	
85.00	0.17	
86.00	0.89	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-19
87.00	0.14	
88.00	0.06	
89.00	0.64	
90.00	0.48	
91.00	0.51	
92.00	0.41	
93.00	0.15	
94.00	0.15	
95.00	0.16	
96.00	0.15	
97.00	0.16	
98.00	0.15	
99.00	0.16	
100.00	0.16	
101.00	0.14	
102.00	0.36	
103.00	0.31	
104.00	0.05	
105.00	0.04	
106.00	0.09	
107.00	0.16	
108.00	0.07	
109.00	0.08	
110.00	0.08	
111.00	0.05	
112.00	0.10	
113.00	0.10	
114.00	0.06	
115.00	0.10	
116.00	0.06	
117.00	0.05	
118.00	0.09	
119.00	0.05	
120.00	0.09	
121.00	0.36	
122.00	0.21	
123.00	0.23	
124.00	0.04	
125.00	0.13	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-19

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
7.25	10.00	64	100	N	
10.00	13.00	20	100	N	
13.00	16.00	78	100	N	
16.00	19.00	60	100	N	
19.00	22.00	76	100	N	
22.00	25.00	78	100	N	
25.00	28.00	95	100	N	
28.00	31.00	87	100	N	
31.00	34.00	77	100	N	
34.00	37.00	91	100	N	
37.00	40.00	71	100	N	
40.00	43.00	67	100	N	
43.00	46.00	86	100	N	
46.00	49.00	93	100	N	
49.00	52.00	92	100	N	
52.00	55.00	62	100	N	
55.00	58.00	67	100	N	
58.00	61.00	84	100	N	
61.00	64.00	80	100	N	
64.00	67.00	78	100	N	
67.00	70.00	92	100	N	
70.00	73.00	81	100	N	
73.00	76.00	96	100	N	
76.00	79.00	90	100	N	
79.00	82.00	84	100	N	
82.00	85.00	97	100	N	
85.00	88.00	73	100	N	
88.00	91.00	88	100	N	
91.00	94.00	84	100	N	
94.00	97.00	86	100	N	
97.00	100.00	100	100	N	
100.00	103.00	90	100	N	
103.00	106.00	52	100	N	
106.00	109.00	87	100	N	
109.00	112.00	94	100	N	
112.00	115.00	86	100	N	
115.00	118.00	65	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-19

118.00	121.00	62	100	N	
121.00	125.00	93	100	N	

Detailed Log

Hole Number: **ES2005-20** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	3/10/2005	Pulse EM Survey:	Y			Logged by:	Trevor Blair
Date Completed:	3/12/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,243.80	Local Northing:	3040.00
UTM Easting:	535,221.00	Local Easting:	1500.00
Elevation:	969.48		

Collar Dip:	-64.79
Collar Azimuth:	235.25
Length:	132.40

Comments

Purpose: Test centre of UTEM conductor on L11500E, located between holes ES2004-08 (2.07%Ni, 1.20%Cu, 0.07%Co / 2.70m (56.30-59.00m)) and ES2004-09 (1.74%Ni, 0.79%Cu, 0.06%Co / 14.60m (80.40-96.00m)).

Result: Intersected 25-30% net textured sulphides (po-pn-cpy) within a pyroxenitic ultramafic from 65.43-69.00m (3.57m), 15% stringer sulphides (po-pn-cpy) in an ultramafic schist from 72.08-73.44m (1.36m) and massive sulphides (po-pn-cpy) from 73.44-75.60m (2.16m). A massive sulphide vein was also intersected from 83.95-85.06m (1.11m).

Assays: 2.81%Ni, 1.11%Cu, 0.08%Co / 10.17m (65.43-75.60m)
6.72%Ni, 1.87%Cu, 0.20%Co / 1.11m (83.95-85.06m)

Borehole UTEM: Multi-peaked responses @ 70m, 74m & 84m. Correlates with intersected mineralization.

Detailed Lithology

From	To		Lithology
0.00	3.07	C	**Casing**
3.07	10.56	4s	**Sausseritized/Tectonized Anorthosite** Medium grained, non-magnetic, green-grey-white, heterogenous, well foliated sausseritized anorthosite composed of plagioclase (sausseritized). This unit contains cm to dm scale mafic intrusives (dykes/sills). This unit is unmineralized. The lower contact of this unit is sharp at 70 degrees to the ca. **Minor Interval** 3.50 – 4.19 **10f Mafic dykes** The upper contact is sharp but irregular (approximately 30 degrees to the ca) with an irregular downhole contact.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data											
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
10.56	18.80	**10f Mafic dykes** Fine grained, weakly to moderately foliated, dark green, homogenous, non- to weakly magnetic mafic intrusive (dyke/sill). Mm scale, white quartz veinlets occur throughout the unit roughly parallel to foliation planes. This unit contains trace disseminated pyrite (cubic). The lower contact of this unit is sharp at 65 degrees to the ca. **Structure** 18.20 18.21 S1 1st Foliation												
18.80	61.26	**4s Sausseritized/Tectonized Anorthosite** Medium grained, highly tectonized, white-green, non-magnetic, heterogenous anorthosite. This unit contains patchy to pervasive (banded) sausseritization, epidotization and possibly sericitization. The unit contains 65-80% plagioclase (variably altered) and 20-35% alteration minerals (chlorite, hematite, sericite?, fuchsite?) This unit contains dm to m scale mafic dykes/sills which locally contain xenoliths of country rock (anorthosite). These mafic intervals are generally well foliated, fine grained, light to dark green, homogenous units that are unmineralized. See minor units for intervals as well as contact relationships. The anorthosite is unmineralized. The lower contact of this unit is sharp but irregular with the downhole mafic intrusive. **Minor Interval** 43.10 46.60 **10f Mafic dykes** The upper and lower contacts of this unit are sharp at 80 and 70 degrees to the ca, respectively. **Minor Interval** 52.22 54.55 **10f Mafic dykes** The upper and lower contacts of this unit are sharp at 80 and 75 degrees to the ca, respectively. **Structure** 22.50 22.51 S1 1st Foliation												
61.26	65.43	**10f Mafic dykes** Fine grained, grey-green, moderately foliated, non- to weakly magnetic mafic intrusive (dyke/sill). This unit contains <5% cm scale intermixed anorthositic bands +- sweats? (digested xenoliths?). This unit is unmineralized. The lower contact of this unit is sharp and sheared but irregular along the downhole ultramafic unit.	PG03758	64.00	65.43	1.43	0.22	0.07	0.01	1.23	0.01	0.01	0.01	0.70

Detailed Lithology

From	To	Lithology
65.43	69.00	**6d Pyroxenite** Fine grained, dark green to black, heterogenous, moderately magnetic, moderately to highly sheared pyroxenite. This unit is composed of dm scale intercalated ultramafic to mafic units with intermixed cm scale anorthositic xenoliths (semi-angular to semi-rounded). This unit is mineralized with pyrrhotite, chalcopyrite, pentlandite and pyrite. Mineralization is throughout the unit as net-textured sulphides with localized remobilized stringers (cpy-rich) proximal to (although not restricted to) ultramafic fragments. Pyrite occurs within heavier concentrated sulphide horizons as mm scale cubes. The lower contact of this unit is gradational over 5cm with the downhole mafic unit and was based on the appearance of discernible plagioclase. **Mineralization** 65.43 69.00 2.0% Pn Pentlandite EY Eyes **Mineralization** 65.43 69.00 4.0% Cpy Chalcopyrite NT Net-Textured **Mineralization** 65.43 69.00 1.0% Py Pyrite CG Coarse Grained **Mineralization** 65.43 69.00 20.0% Po Pyrrhotite NT Net-Textured **Structure** 68.65 68.86 S1 1st Foliation
69.00	72.08	**10f Mafic dykes** Fine grained, well foliated, weakly magnetic, grey-green, homogenous mafic interval composed of chlorite, pyroxenes (tremolite?) and plagioclase. This unit contains dm scale, intermixed sausseritized anorthosite rafts. This unit contains trace cubic pyrite. The lower contact of this unit is sharp along downhole ultramafic unit at 65 degrees to the ca.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03759	65.43	66.45	1.02	1.28	0.70	0.04	6.88	0.01	0.04	0.02	1.00
PG03760	66.45	67.40	0.95	2.57	1.16	0.07	14.00	0.03	0.03	0.03	1.10
PG03761	67.40	68.65	1.25	3.76	1.40	0.10	17.50	0.09	0.09	0.05	1.00
PG03762	68.65	69.00	0.35	1.06	0.84	0.05	4.64	0.01	0.02	0.01	0.50
PG03763	69.00	70.50	1.50	0.19	0.11	0.01	0.71	0.01	0.11	0.02	0.70
PG03764	70.50	72.08	1.58	0.03	0.05	0.01	0.26	0.01	0.01	0.03	0.25

Detailed Lithology

From	To	Lithology
72.08	75.60	**6e Ultramafic Schist** Fine grained, dark green to black, moderately to strongly foliated ultramafic schist composed of sepentine, pyroxene and chlorite. This unit is highly mineralized with the lower ~2m composed of massive sulphides. The upper ultramafic contains net-textured to stringer sulphides (po-cpy-pn-py) throughout the unit giving a brecciated appearance. Massive sulphides are composed of 85% fine grained pyrrhotite, 5% fine grained to patchy chalcopyrite, 5% mm scale pentlandite 'eyes' and 5% semi-angular to rounded ultramafic fragments. The lower contact of this unit is gradational over 15cm and was based on the lack of stringer sulphides.

Mineralization	72.08	73.44	1.0%	Py CG	Pyrite Coarse Grained
Mineralization	72.08	73.44	2.0%	Cpy D	Chalcopyrite Disseminated
Mineralization	72.08	73.44	15.0%	Po D	Pyrrhotite Disseminated
Mineralization	72.08	73.44	1.0%	Pn D	Pentlandite Disseminated
Mineralization	73.44	75.60	5.0%	Pn EY	Pentlandite Eyes
Mineralization	73.44	75.60	5.0%	Cpy FG	Chalcopyrite Fine Grained
Mineralization	73.44	75.60	85.0%	Po FG	Pyrrhotite Fine Grained

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03765	72.08	72.77	0.69	1.83	2.50	0.07	10.90	0.05	0.07	0.03	2.60
PG03766	72.77	73.44	0.67	2.17	0.84	0.09	10.20	0.07	0.03	0.02	0.80
PG03767	73.44	74.52	1.08	7.79	2.34	0.20	32.50	0.05	0.22	0.04	2.60
PG03768	74.52	75.60	1.08	7.72	2.23	0.21	29.80	0.06	0.20	0.31	2.30

Detailed Lithology

From	To	Lithology
75.60	83.00	**10f Mafic dykes** Fine grained, grey-green, massive to weakly foliated, non- to weakly magnetic mafic intrusive composed of pyroxenes, plagioclase and chlorite. This unit contains dm to m scale intermixed sausseritized anorthosite units (see minor units for intervals). This unit contains two seperate cm scale remobilized massive sulphide veinlets at 70-80 degrees to the ca (@82.25m and 82.45m). The lower contact of this unit is sharp at 35 degrees to the ca. **Minor Interval** 76.18 78.40 **4s Sausseritized/Tectonized Anorthosite** **Structure** 81.60 81.61 S1 1st Foliation
83.00	132.40	**4s Sausseritized/Tectonized Anorthosite** Medium grained, non-magnetic, green-grey-white, heterogenous, well foliated sausseritized anorthosite composed of plagioclase (sausseritized). This unit contains cm to dm scale mafic intrusives (dykes/sills). This unit is unmineralized. The lower contact of this unit is unknown as the drillhole was shutdown. **Minor Interval** 83.95 85.06 **MS MASSIVE SULPHIDE (>75%)** Massive sulphide vein 80% fine grained pyrrhotite, 7% chalcopyrite (fine grained, patchy, remobilized), 5% mm scale pentlandite eyes, 8% mm scale semi-angular to rounded gangue fragments (anothosite). 84.80-85.00m: anorthosite fragment. **Minor Interval** 121.35 122.85 **10f Mafic dykes** The upper and lower contacts are sharp at 40 and 50 degrees to the ca, respectively. **Minor Interval** 123.85 125.30 **10f Mafic dykes** The upper and lower contacts are sharp at 70 and 60 degrees to the ca, respectively. **Structure** 87.70 87.71 S1 1st Foliation **Structure** 113.15 113.16 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03769	75.60	76.18	0.58	0.23	0.15	0.03	1.39	0.01	0.01	0.01	0.25
PG03770	76.18	77.40	1.22	0.03	0.03	0.01	0.14	0.01	0.01	0.01	0.25
PG03771	77.40	78.40	1.00	0.03	0.03	0.01	0.17	0.03	0.01	0.01	0.25
PG03772	78.40	79.90	1.50	0.03	0.03	0.01	0.19	0.01	0.01	0.01	0.25
PG03773	79.90	81.40	1.50	0.03	0.03	0.01	0.17	0.01	0.01	0.01	0.25
PG03774	81.40	82.20	0.80	0.03	0.03	0.01	0.25	0.01	0.01	0.01	0.25
PG03776	82.20	82.50	0.30	0.54	0.21	0.10	7.42	0.10	0.02	0.03	0.90
PG03777	82.50	83.00	0.50	0.03	0.06	0.01	0.08	0.01	0.01	0.01	0.25
PG03778	83.00	83.95	0.95	0.12	0.07	0.01	0.47	0.01	0.01	0.01	0.70
PG03779	83.95	85.06	1.11	6.72	1.87	0.20	30.00	0.09	0.16	0.05	2.50
PG03780	85.06	86.06	1.00	0.16	0.16	0.02	0.76	0.02	0.01	0.03	1.00

Espedalen - Analysis

Hole Number: ES2005-20

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03758	64.00	65.43	1.43	0.22	0.07	0.01	1.23	0.01	0.01	0.01	0.70																
PG03759	65.43	66.45	1.02	1.28	0.70	0.04	6.88	0.02	0.01	0.04	1.00																
PG03760	66.45	67.40	0.95	2.57	1.16	0.07	14.00	0.03	0.03	0.03	1.10																
PG03761	67.40	68.65	1.25	3.76	1.40	0.10	17.50	0.05	0.09	0.09	1.00																
PG03762	68.65	69.00	0.35	1.06	0.84	0.05	4.64	0.01	0.01	0.02	0.50																
PG03763	69.00	70.50	1.50	0.19	0.11	0.01	0.71	0.02	0.01	0.11	0.70																
PG03764	70.50	72.08	1.58	0.03	0.05	0.01	0.26	0.03	0.01	0.01	0.25																
PG03765	72.08	72.77	0.69	1.83	2.50	0.07	10.90	0.03	0.05	0.07	2.60																
PG03766	72.77	73.44	0.67	2.17	0.84	0.09	10.20	0.02	0.07	0.03	0.80																
PG03767	73.44	74.52	1.08	7.79	2.34	0.20	32.50	0.04	0.05	0.22	2.60																
PG03768	74.52	75.60	1.08	7.72	2.23	0.21	29.80	0.31	0.06	0.20	2.30																
PG03769	75.60	76.18	0.58	0.23	0.15	0.03	1.39	0.01	0.01	0.01	0.25																
PG03770	76.18	77.40	1.22	0.03	0.03	0.01	0.14	0.01	0.01	0.01	0.25																
PG03771	77.40	78.40	1.00	0.03	0.03	0.01	0.17	0.01	0.03	0.01	0.25																
PG03772	78.40	79.90	1.50	0.03	0.03	0.01	0.19	0.01	0.01	0.01	0.25																
PG03773	79.90	81.40	1.50	0.03	0.03	0.01	0.17	0.01	0.01	0.01	0.25																
PG03774	81.40	82.20	0.80	0.03	0.03	0.01	0.25	0.01	0.01	0.01	0.25																
PG03776	82.20	82.50	0.30	0.54	0.21	0.10	7.42	0.03	0.10	0.02	0.90																
PG03777	82.50	83.00	0.50	0.03	0.06	0.01	0.08	0.01	0.01	0.01	0.25																
PG03778	83.00	83.95	0.95	0.12	0.07	0.01	0.47	0.01	0.01	0.01	0.70																
PG03779	83.95	85.06	1.11	6.72	1.87	0.20	30.00	0.05	0.09	0.16	2.50																
PG03780	85.06	86.06	1.00	0.16	0.16	0.02	0.76	0.03	0.02	0.01	1.00																

Espedalen - Conductivity

Hole Number: ES2005-20

Depth	Conductivity (Siemens)	COMMENTS
65.50	150.00	Uncut core
66.50	999.00	1445 S - uncut core
67.00	840.00	Uncut core
67.70	999.00	1075 S - uncut core
68.40	999.00	1370 S -uncut core
72.70	250.00	Uncut core
73.50	840.00	Uncut core
74.20	999.00	2400 S - uncut core
74.85	999.00	2600 S - uncut core
75.40	999.00	1350 S - uncut core
84.10	999.00	1290 S - uncut core
84.70	999.00	1200 S - uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-20

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
3.00	0.67	
4.00	0.51	
5.00	0.10	
6.00	0.11	
7.00	0.21	
8.00	0.13	
9.00	0.35	
10.00	0.18	
11.00	0.45	
12.00	0.41	
13.00	0.48	
14.00	0.40	
15.00	0.46	
16.00	0.50	
17.00	0.45	
18.00	0.45	
19.00	0.17	
20.00	0.13	
21.00	0.14	
22.00	0.23	
23.00	0.17	
24.00	0.18	
25.00	0.10	
26.00	0.19	
27.00	0.14	
28.00	0.12	
29.00	0.08	
30.00	0.14	
31.00	0.04	
32.00	0.07	
33.00	0.04	
34.00	0.05	
35.00	0.15	
36.00	0.12	
37.00	0.10	
38.00	0.06	
39.00	0.07	
40.00	0.16	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-20
41.00	0.17	
42.00	0.12	
43.00	0.05	
44.00	0.43	
45.00	0.56	
46.00	0.48	
47.00	0.07	
48.00	0.07	
49.00	0.16	
50.00	0.05	
51.00	0.07	
52.00	0.08	
53.00	0.47	
54.00	0.55	
55.00	0.14	
56.00	0.14	
57.00	0.16	
58.00	0.22	
59.00	0.13	
60.00	0.20	
61.00	0.07	
62.00	0.52	
63.00	0.57	
64.00	0.96	
65.00	1.41	
66.00	1.61	
67.00	32.60	
68.00	21.20	
69.00	4.24	
70.00	0.53	
71.00	0.42	
72.00	0.39	
73.00	2.40	
74.00	25.30	
75.00	72.60	
76.00	1.69	
77.00	0.41	
78.00	0.14	
79.00	0.45	
80.00	0.55	
81.00	0.45	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-20
82.00	0.19	
83.00	0.20	
84.00	47.30	
85.00	27.80	
86.00	0.56	
87.00	0.21	
88.00	0.17	
89.00	0.13	
90.00	0.14	
91.00	0.11	
92.00	0.16	
93.00	0.08	
94.00	0.08	
95.00	0.03	
96.00	0.07	
97.00	0.09	
98.00	0.05	
99.00	0.07	
100.00	0.07	
101.00	0.08	
102.00	0.06	
103.00	0.09	
104.00	0.10	
105.00	0.08	
106.00	0.11	
107.00	0.08	
108.00	0.11	
109.00	0.07	
110.00	0.05	
111.00	0.14	
112.00	0.05	
113.00	0.07	
114.00	0.04	
115.00	0.05	
116.00	0.11	
117.00	0.10	
118.00	0.19	
119.00	0.08	
120.00	0.14	
121.00	0.14	
122.00	0.38	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-20

123.00	0.07	
124.00	0.32	
125.00	0.24	
126.00	0.08	
127.00	0.04	
128.00	0.08	
129.00	0.03	
130.00	0.06	
131.00	0.04	
132.00	0.13	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-20

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
3.00	6.00	83	100	N	
6.00	9.00	88	100	N	
9.00	12.00	89	100	N	
12.00	15.00	96	100	N	
15.00	18.00	91	100	N	
18.00	21.00	93	100	N	
21.00	24.00	98	100	N	
24.00	27.00	94	100	N	
27.00	30.00	95	100	N	
30.00	33.00	94	100	N	
33.00	36.00	74	100	N	
36.00	39.00	70	100	N	
39.00	42.00	71	100	N	
42.00	45.00	82	100	N	
45.00	48.00	95	100	N	
48.00	51.00	90	100	N	
51.00	54.00	90	100	N	
54.00	57.00	94	100	N	
57.00	60.00	97	100	N	
60.00	63.00	93	100	N	
63.00	66.00	100	100	N	
66.00	69.00	90	100	N	
69.00	72.00	87	100	N	
72.00	75.00	95	100	N	
75.00	78.00	81	100	N	
78.00	81.00	94	100	N	
81.00	84.00	81	100	N	
84.00	87.00	94	100	N	
87.00	90.00	93	100	N	
90.00	93.00	83	100	N	
93.00	96.00	75	100	N	
96.00	99.00	96	100	N	
99.00	102.00	87	100	N	
102.00	105.00	89	100	N	
105.00	108.00	70	100	N	
108.00	111.00	64	100	N	
111.00	114.00	41	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-20

114.00	117.00	89	100	N	
117.00	120.00	69	100	N	
120.00	123.00	87	100	N	
123.00	126.00	77	100	N	
126.00	129.00	75	100	N	
129.00	132.40	74	100	N	

Detailed Log

Hole Number: **ES2005-21** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Multishot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	3/12/2005	Pulse EM Survey:	N			Logged by:	Trevor Blair
Date Completed:	3/14/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,243.30	Local Northing:	3040.00
UTM Easting:	535,221.30	Local Easting:	1500.00
Elevation: 969.48			

Collar Dip:	-46.00
Collar Azimuth:	230.00
Length:	98.00

Comments

Purpose: Test 25m up-dip toe on mineralization intersected in hole ES2005-20 (2.81%Ni, 1.11%Cu, 0.08%Co / 10.17m (65.43-75.06m)).

Result: Intersected 10% sulphides (po-pn-cpy) within an altered ultramafic from 57.60-63.45m (5.85m). Sulphides occur as cm to dm scale remobilized stringers, semi-massive veinlets and patchy sulphides.

Assays: 1.09%Ni, 0.63%Cu, 0.04%Co / 5.85m (57.60-63.45m)

Borehole UTEM: No survey -> hole blocked.

Detailed Lithology

From	To		Lithology
0.00	3.60	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
3.60	12.30	**4s Sausseritized/Tectonized Anorthosite** Medium grained, well foliated, grey-white-green, heterogenous, non-magnetic, sausseritized anorthosite composed of varying amounts of plagioclase, chlorite, sericite, epidote, fuchsite, hematite. This unit is intermixed with dm to m scale mafic intrusives which appear as fine grained, green-grey, non-magnetic, well foliated, unmineralized intrusions (dykes/sills). This unit is unmineralized. The lower contact of this unit is sharp at 75 along a chilled margin (downhole mafic intrusive). **Minor Interval** 4.65 5.15 **10f Mafic dykes** The upper and lower contacts of this unit are sharp at 85 and 60 degrees to the ca, respectively. **Minor Interval** 9.60 10.20 **10f Mafic dykes** The upper and lower contacts of this unit are sharp at 40 and 80 degrees to the ca, respectively. **Structure** 8.60 8.61 S1 1st Foliation												
12.30	27.25	**10f Mafic dykes** Fine grained, well foliated, dark green, homogenous, non-magnetic mafic intrusive composed of pyroxene, biotite and chlorite. This unit contains <5% mm scale quartz +- carbonate microveinlets parallelling foliation planes (~65 degrees to the ca). This unit contains trace disseminated, fine grained pyrrhotite. The lower contact of this unit is sharp at 50 degrees to the ca. **Minor Interval** 23.25 25.15 **4s Sausseritized/Tectonized Anorthosite** The upper and lower contacts of this unit are sharp at 65 and 60 degrees to the ca, respectively. **Structure** 15.30 15.31 S1 1st Foliation												

Detailed Lithology

From	To	Lithology
27.25	57.60	**4s Sausseritized/Tectonized Anorthosite** Medium grained, well foliated, grey-white-green, heterogenous, non-magnetic, saussentized anorthosite composed of varying amounts of plagioclase, chlorite, sericite, epidote, fuchsite, hematite. This unit is intermixed with dm to m scale mafic intrusives which appear as fine grained, green-grey, non-magnetic, well foliated, unmineralized intrusions (dykes/sills). This unit contains several cm scale massive sulphide veinlets proximal to the lower contact. See mineralization tab for intervals. The lower contact of this unit is sharp but irregular along remoblized sulphide veinlets. **Mineralization** 51.75 51.90 30.0% Po Pyrrhotite VN Veined **Mineralization** 53.85 54.00 100.0% Po Pyrrhotite VN Veined Po-pn-cpy. Upper and lower contacts sharp at 60 and 65 degrees tca, respectively. **Structure** 29.70 29.71 S1 1st Foliation **Structure** 46.30 46.31 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03781	50.65	51.65	1.00	0.11	0.03	0.01	0.39	0.01	0.01	0.01	0.25
PG03782	51.65	51.95	0.30	1.60	0.99	0.08	8.55	0.08	0.04	0.02	1.80
PG03783	51.95	52.80	0.85	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25
PG03784	52.80	53.80	1.00	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25
PG03785	53.80	54.10	0.30	2.47	0.94	0.08	12.70	0.02	0.04	0.03	1.00
PG03786	54.10	55.60	1.50	0.08	0.03	0.01	0.33	0.01	0.01	0.01	0.25
PG03787	55.60	56.60	1.00	0.03	0.07	0.01	0.17	0.01	0.01	0.01	0.25
PG03788	56.60	57.60	1.00	0.14	0.11	0.01	0.52	0.02	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
57.60	63.45	**6 Undivided Ultramafic Intrusive** Fine grained, dark grey to green, non- to weakly magnetic, heterogenous ultramafic unit intercalated with dm scale horizons of mafic intrusives both of which are intermixed with cm to dm scale partially digested anorthosite xenoliths. Dog's breakfast! This unit contains varying degrees of mineralization from fine grained disseminations to cm scale semi-massive stringers, which contain rounded to semi-rounded ultramafic clasts. Sulphides generally are localized within dm scale horizons parallel to foliation planes. Patchy, remobilized sulphides occur proximal to anorthosite xenoliths. The lower contact of this unit is sharp along a broken rusty massive sulphide veinlet (groundwater infiltration?).

Mineralization	57.60	58.00	65.0%	Po	Pyrrhotite
				SM	Semi-Massive
				Brecciated (auto-) semi-massive sulphide	
Mineralization	58.55	58.70	30.0%	Po	Pyrrhotite
				STR	Stringers
				Foliation parallel stringers	
Mineralization	59.25	59.45	25.0%	Po	Pyrrhotite
				MG	Medium Grained
				Patchy, medium grained sulphides	
Mineralization	60.60	60.70	25.0%	Po	Pyrrhotite
				CG	Coarse Grained
				Foliation parallel wispy to coarse grained sulphides	
Mineralization	62.10	62.40	20.0%	Po	Pyrrhotite
				STR	Stringers
				remobilized stringers (irregular angles to the ca)	
Mineralization	62.90	63.45	45.0%	Po	Pyrrhotite
				STR	Stringers
				semi-massive, stringers, patchy	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03789	57.60	58.00	0.40	3.79	0.60	0.17	20.20	0.11	0.07	0.03	0.80
PG03790	58.00	59.20	1.20	0.73	0.35	0.03	4.13	0.01	0.02	0.01	0.25
PG03791	59.20	60.15	0.95	1.36	0.63	0.06	5.94	0.05	0.04	0.05	0.80
PG03792	60.15	61.00	0.85	0.76	0.60	0.01	3.47	0.01	0.02	0.02	1.00
PG03793	61.00	62.10	1.10	0.14	0.23	0.01	0.58	0.01	0.02	0.02	0.25
PG03794	62.10	63.45	1.35	1.41	1.25	0.06	8.12	0.02	0.04	0.02	1.60

Detailed Lithology

From	To	Lithology
63.45	98.00	**4s Sausseritized/Tectonized Anorthosite** Medium grained, well foliated, grey-white-green, heterogenous, non-magnetic, sausseritized anorthosite composed of varying amounts of plagioclase, chlorite, sericite, epidote, fuchsite, hematite. This unit is intermixed with dm to m scale mafic intrusives which appear as fine grained, green-grey, non-magnetic, well foliated, unmineralized intrusions (dykes/sills). This unit is unmineralized. The lower contact of this unit is unknown as the hole was shutdown. **Minor Interval** 82.70 84.30 **10f Mafic dykes** The upper and lower contacts of this unit are sharp at 70 and 40 degrees to the ca, respectively. **Minor Interval** 88.40 93.80 **10f Mafic dykes** The upper contact of this unit is irregular at 25 degrees. The lower contact of this unit is located within broken core although core axis angles proximal to contact are at 60 degrees to the ca. **Structure** 66.30 66.31 S1 1st Foliation **Structure** 88.10 88.11 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03795	63.45	64.50	1.05	0.03	0.03	0.01	0.22	0.02	0.02	0.01	0.25

Espedalen - Analysis

Hole Number: ES2005-21

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03781	50.65	51.65	1.00	0.11	0.03	0.01	0.39	0.01	0.01	0.01	0.25																
PG03782	51.65	51.95	0.30	1.60	0.99	0.08	8.55	0.02	0.08	0.04	1.80																
PG03783	51.95	52.80	0.85	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25																
PG03784	52.80	53.80	1.00	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25																
PG03785	53.80	54.10	0.30	2.47	0.94	0.08	12.70	0.03	0.02	0.04	1.00																
PG03786	54.10	55.60	1.50	0.08	0.03	0.01	0.33	0.01	0.01	0.01	0.25																
PG03787	55.60	56.60	1.00	0.03	0.07	0.01	0.17	0.01	0.01	0.01	0.25																
PG03788	56.60	57.60	1.00	0.14	0.11	0.01	0.52	0.01	0.02	0.01	0.25																
PG03789	57.60	58.00	0.40	3.79	0.60	0.17	20.20	0.03	0.11	0.07	0.80																
PG03790	58.00	59.20	1.20	0.73	0.35	0.03	4.13	0.01	0.01	0.02	0.25																
PG03791	59.20	60.15	0.95	1.36	0.63	0.06	5.94	0.05	0.05	0.04	0.80																
PG03792	60.15	61.00	0.85	0.76	0.60	0.01	3.47	0.02	0.01	0.02	1.00																
PG03793	61.00	62.10	1.10	0.14	0.23	0.01	0.58	0.02	0.01	0.02	0.25																
PG03794	62.10	63.45	1.35	1.41	1.25	0.06	8.12	0.02	0.02	0.04	1.60																
PG03795	63.45	64.50	1.05	0.03	0.03	0.01	0.22	0.01	0.02	0.02	0.25																

Espedalen - Conductivity

Hole Number: ES2005-21

Depth	Conductivity (Siemens)	COMMENTS
53.90	999.00	1450 S - uncut core
57.70	999.00	1000 S - uncut core
59.30	40.00	Uncut core
62.20	40.00	Uncut core
63.35	300.00	Uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-21

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
4.00	0.05	
5.00	0.52	
6.00	0.09	
7.00	0.15	
8.00	0.30	
9.00	0.14	
10.00	0.49	
11.00	0.32	
12.00	0.20	
13.00	0.44	
14.00	0.44	
15.00	0.46	
16.00	0.51	
17.00	0.98	
18.00	0.59	
19.00	0.46	
20.00	0.47	
21.00	0.48	
22.00	0.45	
23.00	0.50	
24.00	0.22	
25.00	0.17	
26.00	0.46	
27.00	0.62	
28.00	0.12	
29.00	0.15	
30.00	0.23	
31.00	0.06	
32.00	0.17	
33.00	0.15	
34.00	0.06	
35.00	0.49	
36.00	0.09	
37.00	0.03	
38.00	0.04	
39.00	0.04	
40.00	0.03	
41.00	0.30	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-21

42.00	0.04	
43.00	0.04	
44.00	0.14	
45.00	0.10	
46.00	0.04	
47.00	0.04	
48.00	0.14	
49.00	0.11	
50.00	0.08	
51.00	0.09	
52.00	0.07	
53.00	0.15	
54.00	3.07	
55.00	0.08	
56.00	0.05	
57.00	0.07	
58.00	5.28	
59.00	0.43	
60.00	1.20	
61.00	0.31	
62.00	0.46	
63.00	2.92	
64.00	0.10	
65.00	0.14	
66.00	0.09	
67.00	0.11	
68.00	0.15	
69.00	0.22	
70.00	0.15	
71.00	0.05	
72.00	0.12	
73.00	0.02	
74.00	0.06	
75.00	0.14	
76.00	0.10	
77.00	0.26	
78.00	0.01	
79.00	0.04	
80.00	0.12	
81.00	0.07	
82.00	0.23	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-21
83.00	0.55	
84.00	0.28	
85.00	0.07	
86.00	0.18	
87.00	0.07	
88.00	0.09	
89.00	0.27	
90.00	0.49	
91.00	0.45	
92.00	0.38	
93.00	0.44	
94.00	0.14	
95.00	0.14	
96.00	0.28	
97.00	0.05	
98.00	0.03	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-21

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
3.60	6.00	86	100	N	
6.00	9.00	90	100	N	
9.00	12.00	85	100	N	
12.00	15.00	95	100	N	
15.00	18.00	90	100	N	
18.00	21.00	95	100	N	
21.00	24.00	87	100	N	
24.00	27.00	100	100	N	
27.00	30.00	100	100	N	
30.00	33.00	97	100	N	
33.00	36.00	100	100	N	
36.00	39.00	58	100	N	
39.00	42.00	74	100	N	
42.00	45.00	67	100	N	
45.00	48.00	87	100	N	
48.00	51.00	94	100	N	
51.00	54.00	65	100	N	
54.00	57.00	72	100	N	
57.00	60.00	88	100	N	
60.00	63.00	83	100	N	
63.00	66.00	87	100	N	
66.00	69.00	81	100	N	
69.00	72.00	100	100	N	
72.00	75.00	51	100	N	
75.00	78.00	89	100	N	
78.00	81.00	88	100	N	
81.00	84.00	92	100	N	
84.00	87.00	100	100	N	
87.00	90.00	97	100	N	
90.00	93.00	91	100	N	
93.00	96.00	82	100	N	
96.00	98.00	100	100	N	

Detailed Log

Hole Number: **ES2005-22** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	3/14/2005	Pulse EM Survey:	Y			Logged by:	Patti Tirschmann
Date Completed:	3/18/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,284.50	Local Northing:	2983.00
UTM Easting:	535,113.20	Local Easting:	1400.00
Elevation:	983.15		

Collar Dip:	-43.65
Collar Azimuth:	233.20
Length:	77.75

Comments

Purpose: Test 22m up-dip toe on mineralization intersected in hole ES2004-08 (2.07% Ni, 1.20%Cu, 0.07%Co / 2.70m (56.30-59.00m)).

Result: Intersected massive sulphide (po-pn-cpy) vein within an anorthosite from 29.35-29.90m (0.55m), followed downhole by a well mineralized ultramafic (30-50% net textured po-pn-cpy) from 31.35m-35.02m (3.67m).

Assays: 3.29%Ni, 1.52%Cu, 0.10%Co / 5.67m (29.35-35.02m)

Borehole UTEM: Predominantly in-hole response (27m) with a small edge response @ 35m. Correlates with intersected mineralization.

Detailed Lithology

From	To		Lithology
0.00	3.70	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
3.70	29.35	**4s Sausseritized/Tectonized Anorthosite** Inhomogeneous, mottled white and pale green, weakly tectonized and weakly to moderately sericitized, coarse grained anorthosite. Consists of approximately 75-80% plagioclase, 5-15% pale green sercite, 5-10% quartz and trace bright green, fine grained mica (fuchsite?). Quartz occurs as patches (mobilizate?), fracture fillings and veinlets. Unit contains a) 5% cm to dm scale intervals of bluish grey UM schist contining trace to 2% pyrite (esp. between 20 and 23m) and b) 3-5% dark green/grey serpentine (?) fracture fillings, possibly due to proximity to UM. Sericitization increases significantlly downhole of 23m towards mineralizaed zone. Magnetic susceptibility: typiclally <0.1. **Minor Interval** 4.50 5.10 **10f Mafic dykes** Fine grained, green mafic dyke. Rusty fractures and broken core near top of hole. **Alteration** 23.00 29.35 SE Sericite P Pervasive M Moderate **Structure** 18.70 18.71 Sm General Foliation **Structure** 25.80 25.81 Sm General Foliation **Structure** 27.50 27.51 Sm General Foliation
29.35	29.90	**MS MASSIVE SULPHIDE (>75%)** Massive sulphide consisting of 85-90% pyrrhotite, 5-7% pentlandite, 3% chalcopyrite and 3% gangue (UM clasts). Pentlandite occurs as 1-5mm diameter rounded "eyes" distributed throughout. Chalcopyrite is fine grained and intermixed with pyrrhotite "groundmass". Interval is weakly foliated. Uphole contact slightly ground; downhole contact sharp at 50° to CA. Magnetic susceptibility: 26-47 Conductivity: 1200-1650 siemens **Mineralization** 29.35 29.90 85.0% Po Pyrrhotite M Massive **Mineralization** 29.35 29.90 3.0% Cpy Chalcopyrite D Disseminated **Mineralization** 29.35 29.90 6.0% Pn Pentlandite EY Eyes **Structure** 29.45 29.46 Sm General Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03796	27.65	28.50	0.85	0.03	0.03	0.01	0.01	0.02	0.02	0.01	0.25
PG03797	28.50	29.35	0.85	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25
PG03798	29.35	29.90	0.55	7.55	1.38	0.22	33.50	0.05	0.07	0.02	1.00

Detailed Lithology

From	To	Lithology
29.90	31.35	**4s Sausseritized/Tectonized Anorthosite** Inhomogeneous, yellowish altered anorthosite, locally with brecciated appearance due to alteration. Interval contains sulphide stringers subparallel to CA between 30.2-30.4m, consisting of pyrrhotite with minor pentlandite and chalcopyrite. Anorthosite is likely a block within mineralized zone as it is bounded uphole by MS and downhole by well mineralized UM. **Mineralization** 30.20 30.40 1.0% Pn Pentlandite D Disseminated **Mineralization** 30.20 30.40 25.0% Po Pyrrhotite STR Stringers Pyrrhotite stringer with 3% cpy and 1-2% **Mineralization** 30.20 30.40 3.0% Cpy Chalcopyrite D Disseminated

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03799	29.90	31.35	1.45	0.25	0.49	0.01	1.42	0.02	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
31.35	35.02	**6 Undivided Ultramafic Intrusive**

Well mineralized ultramafic intrusion (dyke?).

31.35-32.20m: Inhomogeneous interval consisting of 55% sulphide (40% po, 8-10% pn, 5-7% cp), and 45% UM. One 25cm long vein of massive remobilized sulphide occurs near uphole contact, followed by sulphide stringers and semi-massive sulphides. Pentlandite in MS vein occurs as 1-3mm "eyes", 1-2mm wide laminae and fine flecks.

32.20-35.02m: Homogeneous interval consisting of 25-30% net-textured sulphides surrounding 70-75% dark green ultramafic "clasts" ranging in size from 1mm-30mm. 1-2% carbonate alteration in groundmass and along fractures. Unit has a brecciated appearance likely due to tectonization superimposed on original net-textured mineralized UM. Sulphides include 20-25% pyrrhotite, 3% chalcopyrite, 2-3% pentlandite and trace pyrite. Chalcopyrite occurs as network of fine fracture fillings.

Ultramafic has irregular uphole contact marked by 25cm long vein of remobilized massive sulphide from 31.45-31.70m. Downhole contact with mafic dyke is sharp and at 80° to CA. Ultramafic is unmineralized for approx. 6cm immediately adjacent to downhole contact. Weak foliation estimated at 60° to CA.

Magnetic susceptibility: 18-75, avg = 50
Conductivity: 400-1300, avg = 1000

Mineralization	31.35	32.20	9.0%	Pn	Pentlandite
				EY	Eyes
Mineralization	31.35	32.20	5.0%	Cpy	Chalcopyrite
				D	Disseminated
Mineralization	31.35	32.20	40.0%	Po	Pyrrhotite
				SM	Semi-Massive
				Interval contains one 25cm long MS vein as well as SMS and sulhide stringers (40° po, 8-10% pn, 5-7% cp)	
Mineralization	32.20	35.02	3.0%	Cpy	Chalcopyrite
				F	Fracture-Controlled
				CP fills fine network of fractures	
Mineralization	32.20	35.02	25.0%	Po	Pyrrhotite
				NT	Net-Textured
				Interval contains 25-30% net-text sulphide incl. 20-25% po, 3% cp, 2-3%pn, tr py	
Mineralization	32.20	35.02	2.0%	Pn	Pentlandite
				EY	Eyes
Alteration	32.20	35.02	CB	Carbonate	
			D	Disseminated	
			W	Weak	
			2-3% carbonate alteration, disseminated in		

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03801	31.35	32.20	0.85	3.72	2.64	0.12	22.70	0.14	0.05	0.03	2.20
PG03802	32.20	33.00	0.80	3.34	2.43	0.11	6.14	0.06	0.07	0.03	1.80
PG03803	33.00	34.00	1.00	4.07	1.54	0.13	18.40	0.02	0.02	0.01	1.20
PG03804	34.00	35.02	1.02	4.16	1.39	0.12	18.70	0.07	0.09	0.03	1.00

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		groundmass and along narrow fractures **Structure** 34.00 34.01 Sm General Foliation												
35.02	36.50	**10f Mafic dykes** Fine grained green mafic dyke. One narrow interval (inclusion?) of mineralized UM between 35.3m and 35.47m containing 5% po-cp-pn. Magnetic susceptibility: 0.15-0.7 **Mineralization** 35.30 35.47 5.0% Po Pyrrhotite BB Blebby 5% po-cp-pn in UM inclusion **Mineralization** 35.30 35.47 1.0% Cpy Chalcopyrite D Disseminated **Mineralization** 35.30 35.47 1.0% Pn Pentlandite D Disseminated	PG03805	35.02	36.50	1.48	0.34	0.29	0.01	1.59	0.01	0.01	0.01	0.25
36.50	38.15	**6d Pyroxenite** Fine to medium grained blueish green phlogopite-bearing pyroxenite (?) consisting of pyroxene and serpentine with 3-10% dark brown phlogopite grains and clots up to several mms in diameter. Uphole contact with mafic dyke sharp at 60° to CA; downhole contact with anorthosite estimated at 50-55° to CA but apophyses of UM appear to extend downhole into anorthosite. Magnetic susceptibility: 0.2	PG03806	36.50	37.50	1.00	0.13	0.10	0.01	0.45	0.02	0.01	0.01	0.25
			PG03807	37.50	38.15	0.65	0.10	0.06	0.01	0.36	0.01	0.01	0.01	10.50

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
38.15	77.75	**4s Sausseritized/Tectonized Anorthosite** Mottled to striped green and white tectonized and sericitized anorthosite. Similar to uphole, consisting of 80-85% white plagioclase, 10-15% pale green sericite, 1-5% quartz and trace fuchsite. Unit contains a) 5-10% cm scale mafic and ultramafic "bands" (former dykes?) now aligned parallel to shearing and foliation and b) 5% mm scale dark grey amorphorous serpentine veinlets and fracture fillings. Weakly to moderately sheared imparting striped or banded appearance to unit. Fracture-controlled to patchy hematization locally (eg. 42.25-42.55m, 49.5-49.6m, 57.25-62.70m). 1-20mm wide pale pink feldspar veinlets locally (eg. 49.55m-50.5m, 53.20m, 59.2-59.3m). Magnetic susceptibility: typically < 0.20. **Alteration** 42.25 62.70 HM Hematite F Fracture-Controlled M Moderate 5-7% fracture-controlled to patchy hematization **Structure** 41.40 41.41 Sm General Foliation **Structure** 51.00 51.01 Sm General Foliation **Structure** 64.00 64.01 Sm General Foliation **Structure** 77.20 77.21 Sm General Foliation											

Espedalen - Analysis

Hole Number: ES2005-22

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03796	27.65	28.50	0.85	0.03	0.03	0.01	0.01	0.01	0.02	0.02	0.25																
PG03797	28.50	29.35	0.85	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25																
PG03798	29.35	29.90	0.55	7.55	1.38	0.22	33.50	0.02	0.05	0.07	1.00																
PG03799	29.90	31.35	1.45	0.25	0.49	0.01	1.42	0.01	0.02	0.01	0.25																
PG03801	31.35	32.20	0.85	3.72	2.64	0.12	22.70	0.03	0.14	0.05	2.20																
PG03802	32.20	33.00	0.80	3.34	2.43	0.11	6.14	0.03	0.06	0.07	1.80																
PG03803	33.00	34.00	1.00	4.07	1.54	0.13	18.40	0.01	0.02	0.02	1.20																
PG03804	34.00	35.02	1.02	4.16	1.39	0.12	18.70	0.03	0.07	0.09	1.00																
PG03805	35.02	36.50	1.48	0.34	0.29	0.01	1.59	0.01	0.01	0.01	0.25																
PG03806	36.50	37.50	1.00	0.13	0.10	0.01	0.45	0.01	0.02	0.01	0.25																
PG03807	37.50	38.15	0.65	0.10	0.06	0.01	0.36	0.01	0.01	0.01	10.50																

Espedalen - Conductivity

Hole Number: ES2005-22

Depth	Conductivity (Siemens)	COMMENTS
29.50	999.00	1650 S - uncut core
31.50	999.00	1240 S - uncut core
32.00	410.00	Uncut core
32.50	650.00	Uncut core
33.00	999.00	1030 S - uncut core
33.50	950.00	Uncut core
34.00	999.00	1290 S - uncut core
34.50	950.00	Uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-22

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
4.50	0.02	
5.50	0.04	
6.50	0.02	
7.50	0.01	
8.50	0.05	
9.50	0.06	
10.50	0.08	
11.50	0.07	
12.50	0.06	
13.50	0.06	
14.50	0.01	
15.50	0.11	
16.50	0.07	
17.50	0.03	
18.50	0.14	
19.50	0.10	
20.50	0.00	
21.50	0.24	
22.50	0.18	
23.50	0.09	
24.50	0.06	
25.50	0.12	
26.50	0.07	
27.50	0.15	
28.50	0.10	
29.50	46.00	
30.50	0.09	
31.50	29.00	
32.50	49.00	
33.50	67.00	
34.50	62.00	
35.50	0.07	
36.50	0.17	
37.50	0.20	
38.50	0.19	
39.50	0.05	
40.50	0.02	
41.50	0.06	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-22

42.50	0.15	
43.50	0.14	
44.50	0.09	
45.50	0.03	
46.50	0.04	
47.50	0.04	
48.50	0.02	
49.50	0.01	
50.50	0.00	
51.50	0.13	
52.50	0.14	
53.50	0.06	
54.50	0.11	
55.50	0.01	
56.50	0.03	
57.50	0.06	
58.50	0.01	
59.50	0.09	
60.50	0.04	
61.50	0.04	
62.50	0.01	
63.50	0.04	
64.50	0.07	
65.50	0.09	
66.50	0.02	
67.50	0.01	
68.50	0.16	
69.50	0.07	
70.50	0.17	
71.50	0.10	
72.50	0.03	
73.50	0.09	
74.50	0.06	
75.50	0.04	
76.50	0.02	
77.50	0.06	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-22

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
3.00	3.70	0	100	N	Casing
3.70	6.00	30	100	N	Fractured and badly broken 4.5-6.0m
6.00	9.00	74	100	N	
9.00	12.00	86	100	N	
12.00	15.00	84	100	N	
15.00	18.00	92	100	N	
18.00	21.00	85	100	N	
21.00	24.00	76	100	N	
24.00	27.00	83	100	N	
27.00	30.00	90	100	N	
30.00	33.00	74	100	N	
33.00	36.00	90	100	N	
36.00	39.00	69	100	N	Broken: 38-39m
39.00	42.00	33	100	N	Broken: 39.35-40.7m
42.00	45.00	67	100	N	Broken: 42.25-42.50m
45.00	48.00	92	100	N	
48.00	51.00	79	100	N	
51.00	54.00	87	100	N	
54.00	57.00	80	100	N	
57.00	60.00	68	100	N	Hematized and broken @ 58.4m
60.00	63.00	84	100	N	
63.00	66.00	81	100	N	
66.00	69.00	63	100	N	
69.00	72.00	74	100	N	
72.00	75.00	79	100	N	
75.00	77.75	83	100	N	

Detailed Log

Hole Number: **ES2005-23** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Multishot Survey:	Y	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	3/30/2005	Pulse EM Survey:	Y			Logged by:	Trevor Blair, Lars Weiershaeuser
Date Completed:	3/31/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,339.30	Local Northing:	2950.00
UTM Easting:	535,023.10	Local Easting:	1300.00
Elevation:	990.06		

Collar Dip:	-44.83
Collar Azimuth:	232.77
Length:	61.30

Comments

Purpose: Test centre of UTEM conductor on L11300E, 100m grid west of holes ES2004-08 (2.07% Ni, 1.20%Cu, 0.07%Co / 2.70m (56.30-59.00m)) and ES2005-22 (3.29%Ni, 1.52%Cu, 0.10%Co / 5.67m (29.35-35.02m)).

Result: Intersected cm scale sulphide veinlets (po-pn-cpy) within a mafic dyke, from 26.77m-27.27m (0.55m).

Assays: 2.28%Ni, 0.86%Cu, 0.06%Co / 0.50m (26.77-27.27m)

Borehole UTEM: in-hole response @ 27m. Correlates with intersected mineralization.

Detailed Lithology

From	To		Lithology
0.00	2.20	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
2.20	61.30	**4s Sausseritized/Tectonized Anorthosite** Fine-grained white to gray , non-magnetic, heterogeneous, foliated anorthosite. The rock is composed of plagioclase and alteration minerals (chlorite, hematite, minor fuchsite, ?sericite). The rock is intruded by fine-grained, dark gray to black, non-magnetic, moderately foliated, homogeneous mafic dykes (for intervals and contact relationships see minor units). The lower contact is unknown, as the hole was shutdown. The anorthosite is unmineralized

Minor Interval

From	To	
3.60	8.87	**10f Mafic dykes** Fine-grained homogeneous dark gray to black mafic dyke. The upper contact is sharp at ~60 degrees tca, the lower contact is sharp at ~65 degrees tca. This dyke is unmineralized.

Minor Interval

From	To	
25.45	27.27	**10f Mafic dykes** This dyke/sill is composed of dark gray to black homogeneous fine grained non-magnetic rock. The upper contact is sharp at ~50 degrees tca. This unit is characterized by minor amounts of sulfide mineralization, consisting of ~8% po, ~1%cpy, and ~1%pn. The sulfides appear remobilized and occur in cm-scale veinlets over a ~50cm interval. The lower contact of this unit is sharp at 90 degrees tca.

Minor Interval

From	To	
41.30	41.90	**10f Mafic dykes** Fine-grained homogeneous dark gray to black mafic dyke. The upper and lower contact is sharp but irregular. This dyke is unmineralized.

Minor Interval

From	To	
51.85	60.04	**10f Mafic dykes** Fine-grained homogeneous dark gray to black mafic dyke. The upper contact is sharp at ~60 degrees tca, the lower contact is sharp at ~65 degrees tca. This dyke is unmineralized.

Alteration	21.00	25.00	HM	Hematite
			ST	Staining
			W	Weak
Structure	2.80	2.81	S1	1st Foliation
Structure	31.30	31.31	S1	1st Foliation
Structure	38.40	38.41	S1	1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03808	25.52	26.77	1.25	0.17	0.08	0.01	0.91	0.02	0.01	0.01	0.25
PG03809	26.77	27.27	0.50	2.28	0.86	0.06	9.39	0.04	0.05	0.01	1.40
PG03810	27.27	28.52	1.25	0.03	0.03	0.01	0.14	0.01	0.01	0.01	0.25
PG03811	28.52	29.52	1.00	0.07	0.03	0.01	0.19	0.01	0.01	0.01	0.25

Detailed Lithology						Assay Data											
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Structure	47.40	47.41	S1 1st Foliation												

Espedalen - Analysis

Hole Number: ES2005-23

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03808	25.52	26.77	1.25	0.17	0.08	0.01	0.91	0.01	0.02	0.01	0.25																
PG03809	26.77	27.27	0.50	2.28	0.86	0.06	9.39	0.01	0.04	0.05	1.40																
PG03810	27.27	28.52	1.25	0.03	0.03	0.01	0.14	0.01	0.01	0.01	0.25																
PG03811	28.52	29.52	1.00	0.07	0.03	0.01	0.19	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-23

Depth	Conductivity (Siemens)	COMMENTS
27.15	950.00	Uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-23

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
3.00	0.30	
4.00	0.45	
5.00	0.29	
6.00	0.49	
7.00	0.42	
8.00	0.75	
9.00	0.08	
10.00	0.07	
11.00	0.11	
12.00	0.14	
13.00	0.11	
14.00	0.11	
15.00	0.05	
16.00	0.04	
17.00	0.05	
18.00	0.08	
19.00	0.07	
20.00	0.11	
21.00	0.08	
22.00	0.07	
23.00	0.05	
24.00	0.14	
25.00	0.07	
26.00	0.05	
27.00	15.80	
28.00	0.15	
29.00	0.13	
30.00	0.11	
31.00	0.12	
32.00	0.24	
33.00	0.16	
34.00	0.16	
35.00	0.21	
36.00	0.16	
37.00	0.05	
38.00	0.15	
39.00	0.13	
40.00	0.25	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-23
41.00	0.12	
42.00	0.04	
43.00	0.05	
44.00	0.06	
45.00	0.10	
46.00	0.08	
47.00	0.03	
48.00	0.07	
49.00	0.06	
50.00	0.03	
51.00	0.22	
52.00	0.77	
53.00	0.73	
54.00	0.52	
55.00	0.51	
56.00	0.55	
57.00	0.54	
58.00	0.49	
59.00	0.49	
60.00	0.58	
61.00	0.08	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-23

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
2.20	6.00	48	100	N	
6.00	9.00	84	100	N	
9.00	12.00	94	100	N	
12.00	15.00	86	100	N	
15.00	18.00	99	100	N	
18.00	21.00	99	100	N	
21.00	24.00	95	100	N	
24.00	27.00	91	100	N	
27.00	30.00	85	100	N	
30.00	33.00	94	100	N	
33.00	36.00	91	100	N	
36.00	39.00	90	100	N	
39.00	42.00	90	100	N	
42.00	45.00	89	100	N	
45.00	48.00	98	100	N	
48.00	51.00	87	100	N	
51.00	54.00	90	100	N	
54.00	57.00	98	100	N	
57.00	61.30	99	100	N	

Detailed Log

Hole Number: **ES2005-24**

Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
		Pulse EM Survey:	Y				
Date Started:	3/31/2005	Casing:	Left in Hole, capped			Logged by:	Lars Weiershaeuser
Date Completed:	4/2/2005	Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,165.60	Local Northing:	3155.00
UTM Easting:	535,437.50	Local Easting:	1700.00
Elevation: 966.86			

Collar Dip:	-59.44
Collar Azimuth:	233.90
Length:	134.55

Comments

Purpose: Test centre of UTEM conductor on L11700E, 100m grid east of holes ES2004-09 (1.74% Ni, 0.79%Cu, 0.06%Co / 14.60m (80.40-95.00m)).

Result: Intersected well mineralized ultramafic (60% net textured po-pn-cpy) from 104.76-106.44m (1.68m) as well as cm scale remobilized massive sulphide (po-pn-cpy) veinlets within an undivided ultramafic, from 110.80-111.83m (1.03m).

Assays: 1.19%Ni, 0.42%Cu, 0.05%Co / 8.91m (104.76-113.67m) including 4.30%Ni, 1.29%Cu, 0.13%Co / 1.68m (104.76-106.44m) and 2.11%Ni, 0.57%Cu, 0.07%Co / 1.03m (110.80-111.83m).

Borehole UTEM: In-hole responses @ 106m & 112m. Correlates with intersected mineralization.

Detailed Lithology

From	To		Lithology
0.00	14.40	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
14.40	104.35	**4s Sausseritized/Tectonized Anorthosite** Fine-grained white to gray , non-magnetic, heterogeneous, foliated anorthosite. The rock is composed of plagioclase and alteration minerals (chlorite, hematite, minor fuchsite and epidote, ?sericite). The rock is intruded by two different types of fine-grained, dark gray to black, non-magnetic, moderately foliated, homogeneous mafic dykes/sills (for intervals and contact relationships see minor units). Apart from a 5cm wide po-py veinlet, the anorthosite is unmineralized
		Minor Interval
16.40	22.04	**10f Mafic dykes** Fine-grained homogeneous dark gray to black mafic dyke. The upper contact is sharp at ~70 degrees tca, the lower contact is sharp at ~70 degrees tca. This dyke is unmineralized.
		Minor Interval
22.55	23.12	**10f Mafic dykes** Fine-grained homogeneous dark gray to black mafic dyke. The upper contact is sharp at ~80 degrees tca, the lower contact is sharp at ~90 degrees tca. This dyke is unmineralized.
		Minor Interval
26.26	27.28	**10f Mafic dykes** Fine-grained homogeneous dark gray to black mafic dyke. The upper contact is sharp at ~60 degrees tca, the lower contact is sharp at ~80 degrees tca. This dyke is unmineralized.
		Minor Interval
35.22	37.28	**10f Mafic dykes** Fine-grained homogeneous dark gray to black mafic dyke. The upper contact is sharp at ~60 degrees tca, the lower contact is diffuse on a mm to cm-scale at ~80 degrees tca. This dyke is unmineralized
		Minor Interval
42.08	48.49	**10f Mafic dykes** Fine-grained homogeneous dark gray to black mafic dyke. The upper contact is sharp at ~70 degrees tca, the lower contact is diffuse on a mm to cm-scale at ~85 degrees tca. This dyke is unmineralized.
		Minor Interval
52.23	52.61	**10f Mafic dykes** Fine-grained fairly homogeneous medium to dark gray mafic dyke. Upper and lower contacts are diffuse on a mm to cm-scale at ~50 degrees tca. This unit is coarser grained compared to other mafic units; it appears to contain digested wall rock fragments. A small amount of massive (magnetic) pyrrhotite mineralization with trace to minor amounts of pyrite and chalcopyrite is contained in this unit.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03812	51.00	52.25	1.25	0.03	0.03	0.01	0.38	0.01	0.01	0.01	0.25
PG03813	52.25	52.70	0.45	0.23	0.08	0.06	9.70	0.02	0.01	0.01	0.25
PG03814	52.70	54.00	1.30	0.03	0.03	0.01	0.15	0.01	0.01	0.01	0.25
PG03815	103.00	104.35	1.35	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data									
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Minor Interval

55.85 56.93 **10f Mafic dykes**

Fine-grained fairly homogeneous medium to dark gray mafic dyke. Upper and lower contacts are diffuse on a mm to cm-scale at ~90 and ~89 degrees tca respectively. This unit is coarser grained compared to other mafic units; it appears to contain digested wall rock fragments. Locally, it is brecciated. This unit contains trace amounts of pyrrhotite

Minor Interval

90.10 92.68 **10f Mafic dykes**

Fine-grained homogeneous dark gray to black mafic dyke. The upper contact is sharp at ~45 degrees tca, the lower contact is sharp at ~80 degrees tca. This dyke is unmineralized.

Mineralization	52.69	52.74	30.0%	Po	Pyrrhotite
				VN	Veined
Mineralization	52.69	52.74	30.0%	Py	Pyrite
				VN	Veined
Mineralization	95.46	95.56	10.0%	Po	Pyrrhotite
				VN	Veined
Mineralization	95.46	95.56	1.0%	Cpy	Chalcopyrite
				VN	Veined
Alteration	14.40	16.40		ALT	ALTERATION
				P	Pervasive
				W	Weak
				fuchsite	
Alteration	22.04	22.58		ALT	ALTERATION
				P	Pervasive
				W	Weak
				fuchsite	
Alteration	23.12	26.00		ALT	ALTERATION
				P	Pervasive
				W	Weak
				fuchsite	
Alteration	38.00	42.00		HM	Hematite
				P	Pervasive
				M	Moderate

Detailed Lithology						Assay Data												
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Alteration	42.70	43.10	HM	Hematite											
					P	Pervasive											
					S	Strong											
		Alteration	45.75	46.50	HM	Hematite											
					P	Pervasive											
					S	Strong											
		Alteration	48.50	51.00	EP	Epidote											
					PT	Patchy											
					W	Weak											
		Alteration	48.50	51.00	HM	Hematite											
					P	Pervasive											
					W	Weak											
		Alteration	57.00	64.50	HM	Hematite											
					P	Pervasive											
					W	Weak											
		Alteration	57.00	64.50	EP	Epidote											
					PT	Patchy											
					W	Weak											
		Alteration	69.30	71.40	HM	Hematite											
					P	Pervasive											
					W	Weak											
		Alteration	93.50	95.12	HM	Hematite											
					P	Pervasive											
					W	Weak											
		Alteration	98.20	98.55	EP	Epidote											
					PT	Patchy											
					W	Weak											
		Alteration	99.07	99.54	EP	Epidote											
					P	Pervasive											
					W	Weak											
		Alteration	99.54	100.65	EP	Epidote											
					P	Pervasive											
					S	Strong											

Detailed Lithology						Assay Data											
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Alteration	100.65	102.05	HM	Hematite											
					P	Pervasive											
					W	Weak											
		Structure	14.93	14.94	S1	1st Foliation											
		Structure	25.14	25.15	S1	1st Foliation											
		Structure	29.72	29.73	S1	1st Foliation											
		Structure	32.62	32.63	S1	1st Foliation											
		Structure	37.65	37.66	S1	1st Foliation											
		Structure	51.18	51.19	S1	1st Foliation											
		Structure	59.31	59.32	S1	1st Foliation											
		Structure	64.32	64.33	S1	1st Foliation											
		Structure	69.02	69.03	S1	1st Foliation											
		Structure	73.30	73.31	S1	1st Foliation											
		Structure	79.17	79.18	S1	1st Foliation											
		Structure	83.75	83.76	S1	1st Foliation											
		Structure	89.82	89.83	S1	1st Foliation											
		Structure	94.26	94.27	S1	1st Foliation											
		Structure	102.64	102.65	S1	1st Foliation											

Detailed Lithology

From	To	Lithology
104.35	113.67	**10 Mafic Metavolcanic** This unit is highly variable and consits of mafic and ultramafic subunits. It contains the main mineralization encountered in this hole. The upper and lower contacts are sharp, but irregular. For detailed descriptions see subunits. **Minor Interval** 104.35 104.76 **10f Mafic dykes** Fine-grained homogeneous dark gray mafic dyke. The upper contact is sharp but irregular. The hanging wall host rock is brecciated on a cm-scale. Stretched white plagioclase grains form a well-developed foliation. The lower contact is sharp but irregular. This dyke is unmineralized. **Minor Interval** 104.76 106.44 **6 Undivided Ultramafic Intrusive** This ultramafic unit is host to the semi-massive sulfide mineralization consisting of fine grained po, exsolution pn, cpy with gangue minerals occurring as mm scale black, semi-rounded to semi-angular biotite/chlorite clasts. A recrystallized anorthosite ?xenolith (105.78-106.20m), cut by sulfide stringers/veinlets, is contained in this unit. The upper and lower contacts are sharp but irregular. **Minor Interval** 106.44 110.80 **10f Mafic dykes** This subunit is medium gray in color, fine grained, non- to weakly magnetic mafic unit; white plagioclase grains form a fairly well-developed foliation, which gives the rock a mottled appearance. Characteristic for this unit are cm-scale biotite porphyroblasts, some of which are elongated along the foliation. The upper and lower contacts of this unit are sharp but irregular. This unit contains trace amounts po. **Minor Interval** 110.80 111.83 **6 Undivided Ultramafic Intrusive** Fine grained, black to grey-green, locally weakly foliated ultramafic? unit containing cm scale recrystallized anorthositic xenoliths (digested). Sulfide mineralization occurs as recrystallized stringers, some of which are up to ca. 8cm wide thus appearing massive. The sulfides consists mainly of fine grained po, coarser grained py and trace wispy chalcopyrite; pn is less abundant compared to the upper ultramafic unit. The upper and lower contacts are sharp but irregular.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03816	104.35	104.76	0.41	0.03	0.11	0.01	0.57	0.01	0.01	0.01	0.25
PG03817	104.76	105.78	1.02	6.35	1.82	0.17	27.10	0.07	0.08	0.02	1.50
PG03818	105.78	106.14	0.36	0.41	0.27	0.03	3.00	0.02	0.02	0.01	0.25
PG03819	106.14	106.44	0.30	1.97	0.70	0.14	15.80	0.04	0.02	0.02	0.80
PG03820	106.44	107.94	1.50	0.12	0.13	0.01	0.54	0.01	0.01	0.01	0.25
PG03821	107.94	109.44	1.50	0.09	0.14	0.01	0.47	0.03	0.01	0.01	0.60
PG03822	109.44	110.84	1.40	0.16	0.17	0.01	0.75	0.01	0.01	0.01	0.25
PG03823	110.84	111.83	0.99	2.11	0.57	0.07	9.81	0.05	0.04	0.01	0.25
PG03824	111.83	113.24	1.41	0.08	0.08	0.01	0.44	0.01	0.01	0.01	0.25
PG03826	113.24	113.67	0.43	1.33	0.64	0.10	12.70	0.03	0.02	0.02	0.25

Detailed Lithology			Assay Data											
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Minor Interval												
		111.83 113.67 **10f Mafic dykes** Fine-grained, homogeneous, dark gray to black, well foliated mafic dyke. The upper and lower contacts are sharp but irregular. Mineralization consists of a ca. 8cm wide remobilized section, containing mainly po. 2cm wide remobilized sulfide veinlet occurs along the footwall contact (po and cpy).												
113.67	134.55	**4s Sausseritized/Tectonized Anorthosite** Fine-grained white to gray , non-magnetic, heterogeneous, foliated anorthosite. The rock is composed of plagioclase and alteration minerals (chlorite, hematite, minor fuchsite and epidote, ?sericite). The lower contact is unknown, as the hole was shutdown. This anorthosite is unmineralized	PG03827	113.67	115.00	1.33	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25

Alteration	119.00	120.00	EP	Epidote
			PT	Patchy
			W	Weak
Alteration	119.00	119.78	HM	Hematite
			P	Pervasive
			W	Weak
Alteration	121.70	124.60	HM	Hematite
			P	Pervasive
			W	Weak
Structure	118.83	118.84	S1	1st Foliation
Structure	122.24	122.25	S1	1st Foliation
Structure	127.35	127.36	S1	1st Foliation
Structure	134.49	134.50	S1	1st Foliation

Espedalen - Analysis

Hole Number: ES2005-24

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03812	51.00	52.25	1.25	0.03	0.03	0.01	0.38	0.01	0.01	0.01	0.25																
PG03813	52.25	52.70	0.45	0.23	0.08	0.06	9.70	0.01	0.02	0.01	0.25																
PG03814	52.70	54.00	1.30	0.03	0.03	0.01	0.15	0.01	0.01	0.01	0.25																
PG03815	103.00	104.35	1.35	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG03816	104.35	104.76	0.41	0.03	0.11	0.01	0.57	0.01	0.01	0.01	0.25																
PG03817	104.76	105.78	1.02	6.35	1.82	0.17	27.10	0.02	0.07	0.08	1.50																
PG03818	105.78	106.14	0.36	0.41	0.27	0.03	3.00	0.01	0.02	0.02	0.25																
PG03819	106.14	106.44	0.30	1.97	0.70	0.14	15.80	0.02	0.04	0.02	0.80																
PG03820	106.44	107.94	1.50	0.12	0.13	0.01	0.54	0.01	0.01	0.01	0.25																
PG03821	107.94	109.44	1.50	0.09	0.14	0.01	0.47	0.01	0.03	0.01	0.60																
PG03822	109.44	110.84	1.40	0.16	0.17	0.01	0.75	0.01	0.01	0.01	0.25																
PG03823	110.84	111.83	0.99	2.11	0.57	0.07	9.81	0.01	0.05	0.04	0.25																
PG03824	111.83	113.24	1.41	0.08	0.08	0.01	0.44	0.01	0.01	0.01	0.25																
PG03826	113.24	113.67	0.43	1.33	0.64	0.10	12.70	0.02	0.03	0.02	0.25																
PG03827	113.67	115.00	1.33	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-24

Depth	Conductivity (Siemens)	COMMENTS
52.35	999.00	1650 S - uncut core
105.00	999.00	3500 S - uncut core
105.50	999.00	1350 S - uncut core
106.35	999.00	1300 S - uncut core
111.80	999.00	1870 S - uncut core
113.28	999.00	1800 S - uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-24

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
15.00	0.26	
16.00	0.04	
17.00	0.42	
18.00	0.47	
19.00	0.27	
20.00	0.39	
21.00	0.29	
22.00	0.34	
23.00	0.27	
24.00	0.08	
25.00	0.09	
26.00	0.10	
27.00	0.49	
28.00	0.15	
29.00	0.12	
30.00	0.15	
31.00	0.12	
32.00	0.19	
33.00	0.12	
34.00	0.15	
35.00	0.16	
36.00	0.49	
37.00	0.41	
38.00	0.15	
39.00	0.15	
40.00	0.13	
41.00	0.13	
42.00	0.23	
43.00	0.16	
44.00	0.46	
45.00	0.40	
46.00	0.33	
47.00	0.43	
48.00	0.79	
49.00	0.10	
50.00	0.18	
51.00	0.28	
52.00	0.18	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-24

53.00	0.16	
54.00	0.18	
55.00	0.33	
56.00	0.40	
57.00	0.17	
58.00	0.19	
59.00	0.24	
60.00	0.16	
61.00	0.15	
62.00	0.15	
63.00	0.17	
64.00	0.15	
65.00	0.16	
66.00	0.14	
67.00	0.05	
68.00	0.20	
69.00	0.25	
70.00	0.20	
71.00	0.16	
72.00	0.10	
73.00	0.17	
74.00	0.15	
75.00	0.78	
76.00	0.10	
77.00	0.16	
78.00	0.16	
79.00	0.18	
80.00	0.11	
81.00	0.09	
82.00	0.11	
83.00	0.13	
84.00	0.16	
85.00	0.16	
86.00	0.27	
87.00	0.18	
88.00	0.13	
89.00	0.24	
90.00	0.24	
91.00	0.58	
92.00	0.44	
93.00	0.24	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-24

94.00	0.46	
95.00	0.22	
96.00	0.08	
97.00	0.19	
98.00	0.04	
99.00	0.15	
100.00	0.08	
101.00	0.15	
102.00	0.19	
103.00	0.14	
104.00	0.48	
105.00	31.50	
106.00	0.28	
107.00	0.81	
108.00	1.14	
109.00	0.61	
110.00	1.49	
111.00	14.50	
112.00	0.69	
113.00	0.35	
114.00	0.07	
115.00	0.15	
116.00	0.17	
117.00	0.13	
118.00	0.24	
119.00	0.12	
120.00	0.15	
121.00	0.40	
122.00	0.08	
123.00	0.16	
124.00	0.11	
125.00	0.08	
126.00	0.08	
127.00	0.11	
128.00	0.07	
129.00	0.11	
130.00	0.27	
131.00	0.10	
132.00	0.11	
133.00	0.09	
134.00	0.11	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-24

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
0.00	14.40	100	100	N	CASING
14.40	18.00	38	100	N	
18.00	21.00	70	100	N	
21.00	24.00	81	100	N	
24.00	27.00	79	100	N	
27.00	30.00	61	100	N	
30.00	33.00	74	100	N	
33.00	36.00	86	100	N	
36.00	39.00	88	100	N	
39.00	42.00	66	100	N	
42.00	45.00	45	100	N	
45.00	48.00	67	100	N	
48.00	51.00	72	100	N	
51.00	54.00	68	100	N	
54.00	57.00	64	100	N	
57.00	60.00	71	100	N	
60.00	63.00	74	100	N	
63.00	66.00	69	100	N	
66.00	69.00	67	100	N	
69.00	72.00	45	100	N	
72.00	75.00	49	100	N	
75.00	78.00	65	100	N	
78.00	81.00	56	100	N	
81.00	84.00	44	100	N	
84.00	87.00	87	100	N	
87.00	90.00	76	100	N	
90.00	93.00	96	100	N	
93.00	96.00	73	100	N	
96.00	99.00	73	100	N	
99.00	102.00	60	100	N	
102.00	105.00	62	100	N	
105.00	108.00	67	100	N	
108.00	111.00	77	100	N	
111.00	114.00	58	100	N	
114.00	117.00	75	100	N	
117.00	120.00	70	100	N	
120.00	123.00	62	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-24

123.00	126.00	54	100	N	
126.00	129.00	77	100	N	
129.00	132.00	63	100	N	
132.00	134.55	79	100	N	

Detailed Log

Hole Number: **ES2005-25**

Units: METRIC

Project Name: Espedalen	Collar Survey: Y	Plugged N	UTM WGS 84 Coord	Local Coord	Core Storage: Strand Fjellstue
Project Number: 300	Mulitshot Survey: Y	Hole Size: TT46	UTM Northing: 6,801,114.30	Local Northing: 3195.00	Contractor: Arctic Drilling A/S
Date Started: 4/2/2005	Pulse EM Survey: Y		UTM Easting: 535,532.90	Local Easting: 1800.00	Collar Dip: -64.24
Date Completed: 4/5/2005	Casing: Left in Hole, capped		Elevation: 962.44		Collar Azimuth: 230.70
	Location: Surface				Length: 138.40
					Logged by: Trevor Blair

Comments

Purpose: Test UTEM conductor on L11800E, within centre of interpreted plate (conductance = 2000 Siemens).

Result: Intersected cm to dm scale remobilized massive sulphide (po-pn-cpy) veinlets within a mafic dyke as well as within anorthositic country rocks, from 106.45-109.85m (3.40m).

Assays: 1.12%Ni, 0.22%Cu, 0.04%Co / 3.40m (106.45-109.85m)

Borehole UTEM: In-hole response centered @ 110m. Correlates with intersected mineralization.

Detailed Lithology

From	To		Lithology
0.00	13.55	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
13.55	56.20	**4s Sausseritized/Tectonized Anorthosite** Medium to fine grained, heterogenous, white to green, non-magnetic, moderately to highly foliated anorthosite. This unit contains patchy to pervasive (banded) sausseritization, hematization, epidotization and possibly sericitization. The unit contains 65-80% plagioclase (variably altered) and 20-35% alteration minerals (chlorite, hematite, sericite?, fuchsite?) This unit contains dm to m scale mafic dykes/sills which are generally well foliated, fine grained, light to dark green, homogenous units that locally contain trace disseminated pyrrhotite. See minor units for intervals as well as contact relationships. The anorthosite is unmineralized. The lower contact of this unit is sharp along an ultramafic dyke/sill at approximately 70 degrees to the ca. **Minor Interval** 19.40 20.75 **10f Mafic dykes** The upper and lower contacts of this unit are sharp at 80 and 70 degrees to the ca, respectively. **Minor Interval** 22.95 29.00 **10f Mafic dykes** The upper approximate 4m of this unit is highly broken core with hematite staining prevalent. The upper contact of this unit is faulted (gouge - 2cm wide) at approximately 85 degrees to the ca, and the lower contact of this unit is sharp at 85 degrees to the ca. **Minor Interval** 30.45 31.95 **10f Mafic dykes** The upper contact of this unit is sharp at 85 degrees to the ca, and the lower contact of this unit is located within broken core. **Minor Interval** 48.95 52.00 **10f Mafic dykes** The upper and lower contacts of this unit are sharp at 70 and 80 degrees to the ca, respectively. **Structure** 43.50 43.51 S1 1st Foliation												

Detailed Lithology

From	To	Lithology
56.20	66.30	**10f Mafic dykes** Fine grained, well foliated, dark green, non- to weakly magnetic, homogenous mafic dyke/sill composed of pyroxenes (tremolite?), plagioclase, chlorite and biotite. Pyroxenes along the cut drill surface are white in colour, thus appearing as plagioclase but upon closer inspection, tremolite is likely the mineral. This unit contains trace fine grained disseminated pyrrhotite-pyrite? The upper and lower contacts of this unit are both quite sharp at 70 degrees to the ca, with relatively undisturbed contacts with the anorthosite on either side (a happy rock!). **Mineralization** 56.20 66.30 0.5% Po Pyrrhotite TR Trace +/- pyrite **Structure** 63.50 63.51 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03828	59.00	60.50	1.50	0.03	0.03	0.01	0.16	0.01	0.01	0.01	0.25
PG03829	60.50	62.00	1.50	0.03	0.03	0.01	0.11	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
66.30	138.40	**4s Sausseritized/Tectonized Anorthosite** Medium to fine grained, heterogenous, white to green, non-magnetic, moderately to highly foliated anorthosite. This unit contains patchy to pervasive (banded) sausseritization, hematization, epidotization and possibly sericitization. The unit contains 65-80% plagioclase (variably altered) and 20-35% alteration minerals (chlorite, hematite, sericite?, fuchsite?) This unit contains dm to m scale mafic to ultramafic dykes/sills which are generally well foliated, fine grained, light to dark green, homogenous units that locally contain trace disseminated pyrrhotite. See minor units for intervals as well as contact relationships. The anorthosite itself is unmineralized although one massive sulphide veinlet was intersected from 109.60-109.85m (see mineralization tab for sulphide percentages). The lower contact of this unit is sharp along an ultramafic dyke/sill at approximately 70 degrees to the ca. **Minor Interval** 76.50 78.85 **10f Mafic dykes** The upper contact of this unit is sharp but irregular with the lower contact sharp at 80 degrees to the ca. **Minor Interval** 93.85 94.35 **10f Mafic dykes** The upper and lower contacts of this unit are sharp at 75 and 80 degrees to the ca, respectively. **Minor Interval** 95.55 98.10 **10f Mafic dykes** The upper and lower contacts of this unit are both sharp at 80 degrees to the ca. **Minor Interval** 106.45 109.05 **10f Mafic dykes** Fine grained, grey-green, non magnetic, well foliated , homogenous mafic dyke/sill containing cm scale highly tectonized, locally recystallized anorthosite. This unit is locally intruded by cm to dm scale massive sulphide veinlets at variable degrees to the ca. Sulphides appear as fine grained pyrrhotite with mm scale pentlandite eyes and wispy chalcopyrite. Within massive sulphide veinlets, mm scale rounded mafic clasts? occur as well as larger cm scale mafic breccia fragments (angular). See mineralization tab for intervals and mineralization percentages. The upper and lower contacts of this unit are both sharp at 65 degrees to the ca.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03830	105.50	106.45	0.95	0.03	0.03	0.01	0.06	0.01	0.01	0.01	0.25
PG03831	106.45	106.80	0.35	3.32	1.33	0.06	12.40	0.04	0.11	0.02	1.10
PG03832	106.80	108.35	1.55	0.03	0.05	0.01	0.28	0.01	0.01	0.01	0.25
PG03833	108.35	108.70	0.35	2.38	0.20	0.07	13.90	0.06	0.03	0.03	0.25
PG03834	108.70	109.05	0.35	0.11	0.03	0.01	0.59	0.01	0.01	0.01	0.25
PG03835	109.05	109.60	0.55	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25
PG03836	109.60	109.85	0.25	6.64	0.33	0.20	31.30	0.15	0.12	0.02	0.25
PG03837	109.85	110.60	0.75	0.38	0.40	0.03	2.32	0.04	0.02	0.01	0.25
PG03838	110.60	111.50	0.90	0.06	0.06	0.01	0.19	0.02	0.01	0.03	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Minor Interval

129.65 130.00 **10f Mafic dykes**

The upper contact of this unit is sharp at 70 degrees to the ca, with the lower faulted (1cm gouge) contact at 60 degrees to the ca.

Mineralization	109.60	109.85	5.0%	Py	Pyrite
				CG	Coarse Grained
Mineralization	109.60	109.85	0.5%	Cpy	Chalcopyrite
				TR	Trace
Mineralization	109.60	109.85	3.0%	Pn	Pentlandite
				EY	Eyes
Mineralization	109.60	109.85	75.0%	Po	Pyrrhotite
				FG	Fine Grained

Structure	66.50	66.51	S1	1st Foliation
Structure	81.20	81.21	S1	1st Foliation
Structure	92.20	92.21	S1	1st Foliation
Structure	102.00	102.01	S1	1st Foliation
Structure	114.00	114.01	S1	1st Foliation
Structure	116.70	116.71	S1	1st Foliation
Structure	125.00	125.01	S1	1st Foliation
Structure	136.50	136.51	S1	1st Foliation

Espedalen - Analysis

Hole Number: ES2005-25

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03828	59.00	60.50	1.50	0.03	0.03	0.01	0.16	0.01	0.01	0.01	0.25																
PG03829	60.50	62.00	1.50	0.03	0.03	0.01	0.11	0.01	0.01	0.01	0.25																
PG03830	105.50	106.45	0.95	0.03	0.03	0.01	0.06	0.01	0.01	0.01	0.25																
PG03831	106.45	106.80	0.35	3.32	1.33	0.06	12.40	0.02	0.04	0.11	1.10																
PG03832	106.80	108.35	1.55	0.03	0.05	0.01	0.28	0.01	0.01	0.01	0.25																
PG03833	108.35	108.70	0.35	2.38	0.20	0.07	13.90	0.03	0.06	0.03	0.25																
PG03834	108.70	109.05	0.35	0.11	0.03	0.01	0.59	0.01	0.01	0.01	0.25																
PG03835	109.05	109.60	0.55	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25																
PG03836	109.60	109.85	0.25	6.64	0.33	0.20	31.30	0.02	0.15	0.12	0.25																
PG03837	109.85	110.60	0.75	0.38	0.40	0.03	2.32	0.01	0.04	0.02	0.25																
PG03838	110.60	111.50	0.90	0.06	0.06	0.01	0.19	0.03	0.02	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-25

Depth	Conductivity (Siemens)	COMMENTS
106.50	500.00	Uncut core
106.70	999.00	1275 S - Uncut core
108.50	999.00	3200 S - Uncut core
109.70	999.00	2900 S - Uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-25

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
14.00	0.04	
15.00	0.08	
16.00	0.08	
17.00	0.07	
18.00	0.08	
19.00	0.06	
20.00	0.34	
21.00	0.08	
22.00	0.06	
23.00	0.46	
24.00	0.51	
25.00	0.40	
26.00	0.39	
27.00	0.44	
28.00	0.39	
29.00	0.08	
30.00	0.07	
31.00	0.35	
32.00	0.31	
33.00	0.10	
34.00	0.16	
35.00	0.08	
36.00	0.09	
37.00	0.07	
38.00	0.16	
39.00	0.16	
40.00	0.04	
41.00	0.08	
42.00	0.07	
43.00	0.04	
44.00	0.02	
45.00	0.10	
46.00	0.10	
47.00	0.11	
48.00	0.12	
49.00	0.12	
50.00	0.38	
51.00	0.12	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-25

52.00	0.09	
53.00	0.07	
54.00	0.19	
55.00	0.10	
56.00	0.14	
57.00	0.45	
58.00	0.30	
59.00	0.36	
60.00	0.23	
61.00	0.23	
62.00	0.47	
63.00	0.37	
64.00	0.45	
65.00	0.25	
66.00	0.39	
67.00	0.14	
68.00	0.72	
69.00	0.08	
70.00	0.08	
71.00	0.02	
72.00	0.04	
73.00	0.02	
74.00	0.05	
75.00	0.01	
76.00	0.06	
77.00	0.42	
78.00	0.50	
79.00	0.07	
80.00	0.21	
81.00	0.07	
82.00	0.19	
83.00	0.07	
84.00	0.06	
85.00	0.18	
86.00	0.15	
87.00	0.17	
88.00	0.11	
89.00	0.18	
90.00	0.19	
91.00	0.10	
92.00	0.21	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-25
93.00	0.18	
94.00	0.56	
95.00	0.25	
96.00	0.51	
97.00	0.49	
98.00	0.70	
99.00	0.17	
100.00	0.19	
101.00	0.18	
102.00	0.14	
103.00	0.15	
104.00	0.07	
105.00	0.16	
106.00	0.09	
107.00	1.25	
108.00	0.99	
109.00	0.44	
110.00	3.52	
111.00	0.10	
112.00	0.16	
113.00	0.27	
114.00	0.23	
115.00	0.29	
116.00	0.14	
117.00	0.15	
118.00	0.21	
119.00	0.12	
120.00	0.12	
121.00	0.08	
122.00	0.09	
123.00	0.10	
124.00	0.10	
125.00	0.12	
126.00	0.28	
127.00	0.06	
128.00	0.05	
129.00	0.25	
130.00	0.35	
131.00	0.09	
132.00	0.11	
133.00	0.09	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-25

134.00	0.06	
135.00	0.12	
136.00	0.03	
137.00	0.05	
138.00	0.03	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-25

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
13.55	18.00	49	100	N	
18.00	21.00	62	100	N	
21.00	24.00	32	100	N	
24.00	27.00	27	100	N	
27.00	30.00	37	100	N	
30.00	33.00	43	100	N	
33.00	36.00	84	100	N	
36.00	39.00	69	100	N	
39.00	42.00	97	100	N	
42.00	45.00	100	100	N	
45.00	48.00	85	100	N	
48.00	51.00	95	100	N	
51.00	54.00	87	100	N	
54.00	57.00	81	100	N	
57.00	60.00	71	100	N	
60.00	63.00	78	100	N	
63.00	66.00	84	100	N	
66.00	69.00	93	100	N	
69.00	72.00	81	100	N	
72.00	75.00	93	100	N	
75.00	78.00	90	100	N	
78.00	81.00	58	100	N	
81.00	84.00	59	100	N	
84.00	87.00	28	100	N	
87.00	90.00	67	100	N	
90.00	93.00	81	100	N	
93.00	96.00	70	100	N	
96.00	99.00	91	100	N	
99.00	102.00	69	100	N	
102.00	105.00	72	100	N	
105.00	108.00	52	100	N	
108.00	111.00	56	100	N	
111.00	114.00	66	100	N	
114.00	117.00	81	100	N	
117.00	120.00	55	100	N	
120.00	123.00	78	100	N	
123.00	126.00	58	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-25

126.00	129.00	39	100	N	
129.00	132.00	63	100	N	
132.00	135.00	84	100	N	
135.00	138.40	83	100	N	

Detailed Log

Hole Number: **ES2005-26** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	4/6/2005	Pulse EM Survey:	Y			Logged by:	Lars Weiershaeuser
Date Completed:	4/7/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,057.10	Local Northing:	3225.00
UTM Easting:	535,620.30	Local Easting:	1900.00
Elevation:	960.97		

Collar Dip:	-69.82
Collar Azimuth:	225.70
Length:	131.50

Comments

Purpose: Test UTEM conductor on L11900E, within centre of interpreted plate (conductance = 2962 Siemens).

Result: Intersected several cm to dm scale remobilized massive sulphide (po-pn-cpy) veinlets within mafic dykes from 100.89-100.98m (0.09m) and 104.30-105.27m (0.97m)

Assays: 2.13%Ni, 1.51%Cu, 0.08%Co / 0.31m (100.68-100.99m) and 1.20%Ni, 0.88%Cu, 0.04%Co / 0.95m (104.34-105.29m).

Borehole UTEM: In-hole response centered @ 104m. Correlates with intersected mineralization.

Detailed Lithology

From	To		Lithology
0.00	8.90	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
8.90	47.59	**4s Sausseritized/Tectonized Anorthosite** This unit consists of fine-grained, white to light gray, non-magnetic, fairly homogeneous, foliated anorthosite. Major minerals are plagioclase and alteration minerals (chlorite, ?sericite). Depending on the abundance of alteration minerals and degree of foliation, the rock appears mottled white to light gray; changes in appearance occur on a meter-scale. Locally, the unit is cross-cut by mm-scale quartz veinlets. Mafic dykes/sills have intruded this unit. The lower contact is sharp at 60 degrees tca. This unit is not mineralized For a description of the intrusive rocks, see comments of subunits.											
		Minor Interval											
	14.17	15.32 **10f Mafic dykes** Fine-grained homogeneous dark gray to greenish-black, non-magnetic mafic dyke/sill. The upper and lower contacts are sharp at ~70 degrees tca. This unit underwent weak epidote alteration, especially along the wallrock contacts. This unit is not mineralized.											
		Minor Interval											
	16.46	22.45 **10f Mafic dykes** Fine grained, black, weakly to moderately magnetic, homogeneous, foliated mafic dyke/sill. Towards the footwall contact the unit becomes lighter in color. Two anorthosite ?xenoliths are located between 20.96 - 21.15m and 21.34 - 21.48m; the contacts are sharp between ~60 and 85 degrees tca. This subunit contains trace po.											
	Alteration	14.17 15.32 EP Epidote PT Patchy W Weak especially along contacts with mafic dyke											
	Structure	12.45 12.46 S1 1st Foliation											
	Structure	28.41 28.42 S1 1st Foliation											
	Structure	34.32 34.33 S1 1st Foliation											
	Structure	41.52 41.53 S1 1st Foliation											
	Structure	44.72 44.73 S1 1st Foliation											

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
47.59	59.55	**10f Mafic dykes** Fine-grained dark gray to greenish-black, non-magnetic, homogeneous, finely foliated mafic rock, composed of amphibole/pyroxene, chlorite, and alteration minerals. Patchy quartz-epidote alteration is abundant locally between 48.85m and 49.40m. The upper contact is sharp at 60 degrees tca, the lower contact is sharp but irregular; the latter is discordant to the foliation of the underlying anorthosite unit. This unit contains trace po, locally along the foliation. **Mineralization** 47.59 59.55 0.5% Po Pyrrhotite TR Trace very rare disseminated trace po, locally along foliation **Alteration** 48.85 49.40 EP Epidote PT Patchy W Weak **Alteration** 48.85 49.40 Q Quartz PT Patchy W Weak **Structure** 54.72 54.73 S1 1st Foliation												

Detailed Lithology

From	To	Lithology
59.55	131.50	**4s Sausseritized/Tectonized Anorthosite**

This unit consists of fine-grained, white to light gray, non-magnetic, fairly homogeneous, foliated anorthosite. Major minerals are plagioclase and alteration minerals (chlorite, ?sericite). Depending on the abundance of alteration minerals and degree of foliation, the rock appears mottled white to light gray; changes in appearance occur on a meter-scale. Locally, the unit is cross-cut by mm-scale quartz veinlets. Mafic dykes/sills have intruded this unit. The lower contact is sharp at 60 degrees tca.

This unit contains trace po between 83.5 and 96m

For a description of the intrusive rocks, see comments of subunits.

Minor Interval

63.30 65.70 **10f Mafic dykes**

Fine grained, black, non-magnetic, homogeneous, foliated mafic dyke/sill. The upper contact is sharp (break in core), the lower contact is sharp at 50 degrees tca.

This subunit contains trace po.

Minor Interval

78.16 83.42 **10f Mafic dykes**

Fine-grained homogeneous dark gray to greenish-black, non-magnetic mafic dyke/sill. The upper contact is sharp at ~80 degrees tca, lower contact is fairly well defined but irregular. A recrystallized and partly digested anorthosite ?xenolith is at 79.59 - 79.85m; the upper contact is sharp but irregular and the lower contact is sharp at 80 degrees tca.

This unit is not mineralized.

Minor Interval

96.44 96.83 **10f Mafic dykes**

Fine-grained homogeneous dark gray to greenish-black, non-magnetic mafic dyke/sill. The upper contact is sharp at ~90 degrees tca, the lower contact is gradational.

This unit is not mineralized.

Minor Interval

98.66 103.03 **10f Mafic dykes**

Fine-grained homogeneous dark gray to greenish-black, non-magnetic mafic dyke/sill. The upper contact is sharp but irregular, and the lower contact is sharp at ~80 degrees tca.

This unit contains trace amounts of po as well as a 9cm wide massive sulfide section containing po, pn, and cpy. The lower contact is marked by an about 0.5cm wide sulfide ?veinlet containing po and cpy.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03839	99.23	100.68	1.45	0.03	0.03	0.01	0.17	0.02	0.01	0.01	0.25
PG03840	100.68	100.99	0.31	2.13	1.51	0.08	11.10	0.06	0.07	0.04	1.40
PG03841	100.99	102.00	1.01	0.03	0.06	0.01	0.16	0.01	0.01	0.01	0.25
PG03842	102.00	103.03	1.03	0.07	0.11	0.01	0.48	0.02	0.01	0.01	0.25
PG03843	103.03	104.34	1.31	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25
PG03844	104.34	105.29	0.95	1.20	0.88	0.04	6.88	0.03	0.03	0.03	1.10
PG03845	105.29	106.54	1.25	0.05	0.06	0.01	0.12	0.01	0.01	0.01	0.25
PG03846	106.54	107.59	1.05	0.03	0.03	0.01	0.18	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Minor Interval

104.30 105.27 **10f Mafic dykes**

Fine-grained homogeneous dark gray to greenish-black, non-magnetic mafic dyke/sill. The upper contact is sharp but irregular, and the lower contact is sharp at ~70 degrees tca. This unit contains numerous cm-sclale anorthosite ?xenoliths.

Sulfide mineralization consists of remobilized veinlets containing po, cpy, py, and pn.

Minor Interval

127.82 128.73 **10f Mafic dykes**

Fine-grained homogeneous dark gray to greenish-black, non-magnetic mafic dyke/sill. The upper contact is sharp at ~65 degrees tca, and the lower contact is sharp at ~60 degrees tca. This unit is weakly to moderately pervasively epidote altered.

The unit is not mineralized.

Minor Interval

130.82 131.50 **10f Mafic dykes**

Fine-grained homogeneous dark gray to greenish-black, non-magnetic mafic dyke/sill. The upper contact is sharp at ~80 degrees tca. The lower contact of this unit is not know as the hole was shut down.

Mineralization	83.50	96.00	0.5%	Po	Pyrrhotite
				TR	Trace
Mineralization	105.86	105.96	0.5%	Po	Pyrrhotite
				TR	Trace
Mineralization	107.02	107.03	2.0%	Pn	Pentlandite
				VN	Veined
				remobilized veinlet	
Mineralization	107.02	107.03	10.0%	Py	Pyrite
				VN	Veined
				remobilized veinlet	
Mineralization	107.02	107.03	50.0%	Po	Pyrrhotite
				VN	Veined
				remobilized veinlet	
Alteration	66.55	73.50	ALT	ALTERATION	
			P	Pervasive	
			W	Weak	
			fuchsite		

Detailed Lithology

From	To	Lithology			
		Alteration	127.82	128.73	EP Epidote
					P Pervasive
					W Weak
		Structure	66.29	66.30	S1 1st Foliation
		Structure	69.71	69.72	S1 1st Foliation
		Structure	74.67	74.68	S1 1st Foliation
		Structure	87.24	87.25	S1 1st Foliation
		Structure	94.58	94.59	S1 1st Foliation
		Structure	105.70	105.71	S1 1st Foliation
		Structure	111.42	111.43	S1 1st Foliation
		Structure	116.14	116.15	S1 1st Foliation
		Structure	122.22	122.23	S1 1st Foliation
		Structure	129.05	129.06	S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Espedalen - Analysis

Hole Number: ES2005-26

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03839	99.23	100.68	1.45	0.03	0.03	0.01	0.17	0.01	0.02	0.01	0.25																
PG03840	100.68	100.99	0.31	2.13	1.51	0.08	11.10	0.04	0.06	0.07	1.40																
PG03841	100.99	102.00	1.01	0.03	0.06	0.01	0.16	0.01	0.01	0.01	0.25																
PG03842	102.00	103.03	1.03	0.07	0.11	0.01	0.48	0.01	0.02	0.01	0.25																
PG03843	103.03	104.34	1.31	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25																
PG03844	104.34	105.29	0.95	1.20	0.88	0.04	6.88	0.03	0.03	0.03	1.10																
PG03845	105.29	106.54	1.25	0.05	0.06	0.01	0.12	0.01	0.01	0.01	0.25																
PG03846	106.54	107.59	1.05	0.03	0.03	0.01	0.18	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-26

Depth	Conductivity (Siemens)	COMMENTS
100.94	999.00	1180 S - uncut core
104.45	75.00	Uncut core
104.68	96.00	Uncut core
105.19	177.00	Uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-26

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
9.00	0.13	
10.00	0.07	
11.00	0.03	
12.00	0.09	
13.00	0.08	
14.00	0.08	
15.00	0.46	
16.00	0.81	
17.00	7.06	
18.00	9.14	
19.00	8.64	
20.00	0.87	
21.00	0.15	
22.00	0.30	
23.00	0.16	
24.00	0.12	
25.00	0.14	
26.00	0.12	
27.00	0.18	
28.00	0.13	
29.00	0.13	
30.00	0.13	
31.00	0.25	
32.00	0.73	
33.00	0.11	
34.00	0.14	
35.00	0.15	
36.00	0.08	
37.00	0.04	
38.00	0.08	
39.00	0.04	
40.00	0.08	
41.00	0.06	
42.00	0.06	
43.00	0.07	
44.00	0.05	
45.00	0.02	
46.00	0.04	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-26

47.00	0.07	
48.00	0.51	
49.00	0.47	
50.00	0.31	
51.00	0.42	
52.00	0.50	
53.00	0.39	
54.00	0.44	
55.00	0.48	
56.00	0.15	
57.00	0.47	
58.00	0.35	
59.00	0.23	
60.00	0.05	
61.00	0.05	
62.00	0.08	
63.00	0.08	
64.00	0.36	
65.00	0.77	
66.00	0.11	
67.00	0.05	
68.00	0.03	
69.00	0.06	
70.00	0.18	
71.00	0.16	
72.00	0.21	
73.00	0.21	
74.00	0.18	
75.00	0.15	
76.00	0.13	
77.00	0.09	
78.00	0.09	
79.00	0.48	
80.00	0.52	
81.00	0.50	
82.00	0.57	
83.00	0.39	
84.00	0.17	
85.00	0.14	
86.00	0.04	
87.00	0.16	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-26
88.00	0.32	
89.00	0.19	
90.00	0.14	
91.00	0.11	
92.00	0.59	
93.00	0.18	
94.00	0.22	
95.00	0.18	
96.00	0.19	
97.00	0.15	
98.00	0.20	
99.00	1.03	
100.00	0.44	
101.00	0.45	
102.00	0.38	
103.00	0.03	
104.00	0.16	
105.00	2.46	
106.00	0.60	
107.00	0.32	
108.00	0.18	
109.00	0.07	
110.00	0.13	
111.00	0.03	
112.00	0.14	
113.00	0.20	
114.00	0.18	
115.00	0.05	
116.00	0.03	
117.00	0.08	
118.00	0.04	
119.00	0.20	
120.00	0.22	
121.00	0.09	
122.00	0.01	
123.00	0.15	
124.00	0.07	
125.00	0.04	
126.00	0.24	
127.00	0.10	
128.00	0.18	

Espedalen - Magnetic Susceptibility	Hole Number: ES2005-26

129.00	0.02	
130.00	0.04	
131.00	0.14	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-26

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
0.00	8.90	100	100	N	CASING
8.90	12.00	35	100	N	
12.00	15.00	55	100	N	
15.00	18.00	41	100	N	
18.00	21.00	33	100	N	
21.00	24.00	28	100	N	
24.00	27.00	53	100	N	
27.00	30.00	61	100	N	
30.00	33.00	75	100	N	
33.00	36.00	80	100	N	
36.00	39.00	73	100	N	
39.00	42.00	66	100	N	
42.00	45.00	76	100	N	
45.00	48.00	67	100	N	
48.00	51.00	90	100	N	
51.00	54.00	65	100	N	
54.00	57.00	94	100	N	
57.00	60.00	87	100	N	
60.00	63.00	56	100	N	
63.00	66.00	83	100	N	
66.00	69.00	91	100	N	
69.00	72.00	90	100	N	
72.00	75.00	93	100	N	
75.00	78.00	88	100	N	
78.00	81.00	86	100	N	
81.00	84.00	85	100	N	
84.00	87.00	90	100	N	
87.00	90.00	93	100	N	
90.00	93.00	91	100	N	
93.00	96.00	100	100	N	
96.00	99.00	82	100	N	
99.00	102.00	66	100	N	
102.00	105.00	77	100	N	
105.00	108.00	72	100	N	
108.00	111.00	68	100	N	
111.00	114.00	83	100	N	
114.00	117.00	85	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-26

117.00	120.00	79	100	N	
120.00	123.00	92	100	N	
123.00	126.00	78	100	N	
126.00	129.00	57	100	N	
129.00	131.50	57	100	N	

Detailed Log

Hole Number: **ES2005-27** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	4/8/2005	Pulse EM Survey:	Y			Logged by:	Lars Weiershaeuser
Date Completed:	4/10/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,800,996.30	Local Northing:	3250.00
UTM Easting:	535,703.20	Local Easting:	2000.00
Elevation:	961.05		

Collar Dip:	-69.46
Collar Azimuth:	228.60
Length:	134.00

Comments

Purpose: Test UTEM conductor on L12000E, within centre of interpreted plate (conductance = 1849 Siemens).

Result: Intersected several cm to dm scale remobilized massive sulphide (po-pn-cpy) veinlets within ultramafic intrusives, mafic dykes and host anorthosites from 93.14-94.21m (1.07m) and 94.48-97.75m (3.27m)

Assays: 2.36%Ni, 1.01%Cu, 0.08%Co / 1.06m (93.15-94.21m)

Borehole UTEM: In-hole response centered @ 94m. Correlates with intersected mineralization.

Detailed Lithology

From	To		Lithology
0.00	11.50	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

11.50 34.82 **4s Sausseritized/Tectonized Anorthosite**

This unit consists of fine-grained, white to light gray, where altered also reddish or greenish, non-magnetic, on a meter-scale fairly homogeneous, foliated anorthosite. Major minerals are plagioclase and alteration minerals (chlorite, hematite, fuchsite, epidote?sericite). Depending on the abundance of alteration minerals and degree of foliation, the rock appears mottled white to light gray, greenish, or reddish; changes in appearance occur on a meter-scale. Locally, the unit is cross-cut by mm-scale quartz veinlets. At 31.56m the unit changes appearance from well-foliated to more massive/recrystallized; in the latter section, free quartz is abundant and locally the rock appears brecciated. Between 30.08m and 31.06m two mafic ?xenoliths occur, which contain mm-scale py-po plebs. The contacts of the xenoliths are gradational. The lower contact is sharp but irregular.

This unit is not mineralized

For a description of the intrusive rock, see comments of subunit.

Minor Interval

11.50 12.55 **10f Mafic dykes**

Fine grained, black to greenish-black, non-magnetic, homogeneous, foliated mafic dyke/sill. The lower contact is very sharp at ~50 degrees tca.

This subunit contains trace po.

Alteration	13.50	28.00	HM	Hematite
			P	Pervasive
			W	Weak
Alteration	22.70	23.20	Q	Quartz
			P	Pervasive
			M	Moderate
Alteration	22.70	23.20	EP	Epidote
			P	Pervasive
			M	Moderate
Alteration	28.56	30.45	ALT	ALTERATION
			P	Pervasive
			W	Weak
			fuchsite	
Alteration	31.55	34.82	ALT	ALTERATION
			PT	Patchy
			W	Weak
			fuchsite	

Detailed Lithology						Assay Data											
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Alteration	31.55	34.82	Q Quartz P Pervasive M Moderate locally brecciated												
		Alteration	32.40	32.60	HM Hematite P Pervasive S Strong												
		Structure	19.84	19.85	S1 1st Foliation												
		Structure	22.38	22.39	S1 1st Foliation												
		Structure	26.76	26.77	S1 1st Foliation												
		Structure	31.12	31.13	S1 1st Foliation												
34.82	54.83	**10f Mafic dykes** Fine-grained dark gray to greenish-black, non-magnetic, homogeneous, well foliated ultramafic rock, composed of amphibole/pyroxene, chlorite, and alteration minerals. The upper contact is sharp but irregular, the lower contact is sharp, slightly wavey at ~65 degrees tca. This unit contains trace po, locally parallel to the foliation.				PG03847	41.00	42.50	1.50	0.03	0.03	0.01	0.11	0.01	0.01	0.01	0.25
						PG03848	42.50	44.00	1.50	0.03	0.03	0.01	0.12	0.01	0.01	0.04	0.25
		Minor Interval															
		44.82	49.34	**4s Sausseritized/Tectonized Anorthosite** This subunit consists of a medium grained, white to light green, locally black (depending on alteration minerals), non-magnetic, rather inhomogeneous, recrystallized anorthosite. The unit is primarily composed of plagiolcase; quartz, epidote, chlorite are abundant as alteration minerals. The upper and lower contacts are sharp at ~60 degrees tca. A ultramafic dark gray to black xenolith occurs between 47.39m and 47.74m with upper and lower contacts of ~60 and ~50 degrees tca. This subunit is not mineralized.													
		Structure	36.93	36.94	S1 1st Foliation												
		Structure	41.36	41.37	S1 1st Foliation												

Detailed Lithology

From	To	Lithology
54.83	134.00	**4s Sausseritized/Tectonized Anorthosite**

This unit consists of fine-grained, white to medium dark gray, non-magnetic, homogeneous, foliated anorthosite. Major minerals are plagioclase and alteration minerals (chlorite and minor fuchsite and epidote?sericite). The upper~20m of this unit contains numerous cm- to dm-scale mafic xenoliths with characteristic mm-scale biotite grains; the xenoliths seem to have be flattened parallel to the foliation. The contacts are gradational on a cm-scale and locally seem to be recrystallized. Locally, the xenoliths contain trace po. Below 93m this unit contains ~20% intrusive mafic and ultramafic dykes/sills. Locally, the rock changes abruptly from well foliated to recrystallized, coarse-grained, weakly to non foliated. Quartz (and minor epidote) is common in these recrystallized sections.

The thickness of this unit is not known as the hole was shut down.

This unit is not mineralized.

For a description of the intrusive rock, see comments of subunit.

Minor Interval

74.18 78.38 **10f Mafic dykes**

Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper and lower contacts are sharp at ~90 and ~60 degrees tca, respectively. The unit is finer-grained within ~20 cm of the upper and lower contact.

This unit is not mineralized.

Minor Interval

93.14 94.21 **6 Undivided Ultramafic Intrusive**

Fine-grained, black, non-magnetic, fairly homogeneous ultramafic subunit. The upper contact is sharp but irregular; the lower contact is characterized by recrystallization, assimilation, and tectonization of FW anorthosite over ~20 - 25 cm.

This unit contains 10 - 15% cm scale remobilized sulfide veinlets (po, pn, cpy, py).

Minor Interval

95.24 97.04 **10f Mafic dykes**

Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper and lower contacts are sharp at ~80 and ~90 degrees tca, respectively. The unit is finer-grained within ~35 cm of the upper and lower contact.

Remobilized massive sulfide veinlets, containing po, cpy, py, and pn up to ~3cm wide occur at 95.39 m, 95.76 m, 95.84 m, 96.05 m, and 97.01m.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03849	92.00	93.15	1.15	0.03	0.03	0.01	0.04	0.02	0.01	0.01	0.25
PG03851	93.15	94.21	1.06	2.36	1.01	0.08	10.40	0.05	0.05	0.03	0.70
PG03852	94.21	95.24	1.03	0.16	0.07	0.01	1.31	0.01	0.01	0.01	0.25
PG03853	95.24	96.35	1.11	0.24	0.73	0.01	1.68	0.01	0.01	0.01	0.60
PG03854	96.35	97.04	0.69	0.42	0.16	0.01	1.85	0.02	0.01	0.01	0.25
PG03855	97.04	97.36	0.32	0.07	0.21	0.01	0.28	0.02	0.01	0.01	0.25
PG03856	97.36	98.24	0.88	0.44	0.03	0.01	1.47	0.03	0.01	0.01	0.25
PG03857	98.24	99.50	1.26	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Minor Interval												
97.36	98.24	**10f Mafic dykes** Fine-grained, medium gray, non-magnetic, mafic subunit; the upper and lower contacts are sharp at ~60 degrees tca. The unit is characterized by ~1 cm wide black ?chlorite-rich alteration "bands" parallel to subparallel to foliation. A 2 - 3 cm wide remobilized massive sulfide veinlet occurs at 97.75 m.											
		Minor Interval											
103.27	103.89	**10f Mafic dykes** Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper contact is sharp but irregular and the lower contact is sharp at ~80 derees tca. The unit is finer-grained within ~10 cm of the lower contact. The unit intruded into a recrystallized, coarse-grained section of anorthosite, where free quartz is common. This unit is not mineralized.											
		Minor Interval											
105.35	105.90	**10f Mafic dykes** Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper contact is sharp at ~60 degrees tca, and the lower contact is sharp but irregular. Very weak epidote alteration is evident in this unit. This unit is not mineralized.											
		Minor Interval											
109.69	110.36	**10f Mafic dykes** Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper and lower contacts are sharp but irregular. The unit is weakly to moderately epidote altered within the lower ~25 cm. This unit is not mineralized.											

Detailed Lithology			Assay Data									
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Minor Interval

118.15 122.14 **10f Mafic dykes**

Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper contact is ill-defined and masked by epidote alteration, which reaches for about 35 cm into the hanging wall; the lower contact is sharp at ~90 degrees tca. The unit is finer-grained within ~20 - 25 cm of the upper and lower contact. A recrystallized moderately to strongly quartz altered anorthosite ?xenolith is located between 118.52 and 118.88 m.

This unit is not mineralized.

Minor Interval

129.62 131.24 **10f Mafic dykes**

Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper contact was lost when the core was pulled; the lower contact is sharp at ~70 degrees tca. The unit is finer-grained within ~20 cm of the upper and lower contact.

This unit is not mineralized.

Alteration	117.80	119.45	EP	Epidote
			P	Pervasive
			W	Weak
			weak to moderate	
Alteration	117.80	119.45	Q	Quartz
			P	Pervasive
			W	Weak
			weak to moderate	
Structure	55.53	55.54	S1	1st Foliation
Structure	58.67	58.68	S1	1st Foliation
Structure	67.47	67.48	S1	1st Foliation
Structure	73.19	73.20	S1	1st Foliation
Structure	79.07	79.08	S1	1st Foliation
Structure	85.09	85.10	S1	1st Foliation
Structure	89.85	89.86	S1	1st Foliation
Structure	94.41	94.42	S1	1st Foliation
Structure	102.45	102.46	S1	1st Foliation
Structure	115.92	115.93	S1	1st Foliation
Structure	128.67	128.68	S1	1st Foliation

Espedalen - Analysis

Hole Number: ES2005-27

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03847	41.00	42.50	1.50	0.03	0.03	0.01	0.11	0.01	0.01	0.01	0.25																
PG03848	42.50	44.00	1.50	0.03	0.03	0.01	0.12	0.04	0.01	0.01	0.25																
PG03849	92.00	93.15	1.15	0.03	0.03	0.01	0.04	0.01	0.02	0.01	0.25																
PG03851	93.15	94.21	1.06	2.36	1.01	0.08	10.40	0.03	0.05	0.05	0.70																
PG03852	94.21	95.24	1.03	0.16	0.07	0.01	1.31	0.01	0.01	0.01	0.25																
PG03853	95.24	96.35	1.11	0.24	0.73	0.01	1.68	0.01	0.01	0.01	0.60																
PG03854	96.35	97.04	0.69	0.42	0.16	0.01	1.85	0.01	0.02	0.01	0.25																
PG03855	97.04	97.36	0.32	0.07	0.21	0.01	0.28	0.01	0.02	0.01	0.25																
PG03856	97.36	98.24	0.88	0.44	0.03	0.01	1.47	0.01	0.03	0.01	0.25																
PG03857	98.24	99.50	1.26	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-27

Depth	Conductivity (Siemens)	COMMENTS
93.30	55.00	Uncut core
93.57	999.00	1000S - uncut core
93.70	999.00	1400S - uncut core
93.80	275.00	Uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-27

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
12.00	0.44	
13.00	0.16	
14.00	0.15	
15.00	0.13	
16.00	0.13	
17.00	0.14	
18.00	0.10	
19.00	0.01	
20.00	0.07	
21.00	0.06	
22.00	0.31	
23.00	0.05	
24.00	0.33	
25.00	0.19	
26.00	0.18	
27.00	0.17	
28.00	0.16	
29.00	0.19	
30.00	0.13	
31.00	0.30	
32.00	0.04	
33.00	0.03	
34.00	0.06	
35.00	0.73	
36.00	0.71	
37.00	0.40	
38.00	0.49	
39.00	0.42	
40.00	0.40	
41.00	0.40	
42.00	0.36	
43.00	0.44	
44.00	0.39	
45.00	0.07	
46.00	0.08	
47.00	0.10	
48.00	0.55	
49.00	0.08	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-27

50.00	0.48	
51.00	0.49	
52.00	0.21	
53.00	0.43	
54.00	0.43	
55.00	0.19	
56.00	0.25	
57.00	0.07	
58.00	0.16	
59.00	0.16	
60.00	0.07	
61.00	0.19	
62.00	0.16	
63.00	0.43	
64.00	0.19	
65.00	0.15	
66.00	0.13	
67.00	0.18	
68.00	0.17	
69.00	0.16	
70.00	0.20	
71.00	0.28	
72.00	0.15	
73.00	0.19	
74.00	0.38	
75.00	0.47	
76.00	0.54	
77.00	0.49	
78.00	0.64	
79.00	0.22	
80.00	0.17	
81.00	0.19	
82.00	0.15	
83.00	0.18	
84.00	0.07	
85.00	0.10	
86.00	0.21	
87.00	0.14	
88.00	0.30	
89.00	0.18	
90.00	0.19	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-27

91.00	0.16	
92.00	0.12	
93.00	0.18	
94.00	1.26	
95.00	0.52	
96.00	1.40	
97.00	25.40	
98.00	1.00	
99.00	0.15	
100.00	0.16	
101.00	0.12	
102.00	0.16	
103.00	0.04	
104.00	0.10	
105.00	0.02	
106.00	0.18	
107.00	0.15	
108.00	0.06	
109.00	0.04	
110.00	0.36	
111.00	0.05	
112.00	0.04	
113.00	0.03	
114.00	0.04	
115.00	0.10	
116.00	0.04	
117.00	0.09	
118.00	0.09	
119.00	0.42	
120.00	0.45	
121.00	0.46	
122.00	0.57	
123.00	0.11	
124.00	0.19	
125.00	0.07	
126.00	0.04	
127.00	0.07	
128.00	0.05	
129.00	0.01	
130.00	0.48	
131.00	0.51	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-27

132.00	0.04	
133.00	0.05	
134.00	0.01	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-27

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
11.50	15.00	63	100	N	
15.00	18.00	76	100	N	
18.00	21.00	90	100	N	
21.00	24.00	77	100	N	
24.00	27.00	88	100	N	
27.00	30.00	92	100	N	
30.00	33.00	70	100	N	
33.00	36.00	60	100	N	
36.00	39.00	81	100	N	
39.00	42.00	83	100	N	
42.00	45.00	97	100	N	
45.00	48.00	69	100	N	
48.00	51.00	87	100	N	
51.00	54.00	98	100	N	
54.00	57.00	84	100	N	
57.00	60.00	100	100	N	
60.00	63.00	89	100	N	
63.00	66.00	97	100	N	
66.00	69.00	97	100	N	
69.00	72.00	70	100	N	
72.00	75.00	79	100	N	
75.00	78.00	67	100	N	
78.00	81.00	94	100	N	
81.00	84.00	97	100	N	
84.00	87.00	97	100	N	
87.00	90.00	84	100	N	
90.00	93.00	97	100	N	
93.00	96.00	57	100	N	
96.00	99.00	66	100	N	
99.00	102.00	80	100	N	
102.00	105.00	88	100	N	
105.00	108.00	69	100	N	
108.00	111.00	79	100	N	
111.00	114.00	33	100	N	
114.00	117.00	42	100	N	
117.00	120.00	67	100	N	
120.00	123.00	77	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-27

123.00	126.00	98	100	N	
126.00	129.00	81	100	N	
129.00	132.00	72	100	N	
132.00	134.00	33	100	N	

Detailed Log

Hole Number: **ES2005-28** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	UTM WGS 84 Coord	Local Coord	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	UTM Northing: 6,800,932.70	Local Northing: 3270.00	Contractor:	Arctic Drilling A/S
Date Started:	4/11/2005	Pulse EM Survey:	Y			UTM Easting: 535,783.10	Local Easting: 2100.00	Logged by:	Lars Weiershaeuser
Date Completed:	4/12/2005	Casing:	Left in Hole, capped			Elevation: 960.72			
		Location:	Surface						

Collar Dip: -69.67
Collar Azimuth: 232.50
Length: 105.80

Comments

Purpose: Test UTEM conductor on L12100E, within centre of interpreted plate (conductance = 1315 Siemens).

Result: Intersected several cm to dm scale remobilized massive sulphide (po-pn-cpy) veinlets within ultramafic intrusives from 71.45-71.84m (0.39m) and 74.35-74.83m (0.48m). A massive sulphide (po-pn-cpy) veinlet was intersected along the footwall contact of a mafic dyke from 73.39-73.54m (0.15m).

Assays: 1.65%Ni, 0.78%Cu, 0.04%Co / 0.36m (71.45-71.84m); 2.97%Ni, 2.16%Cu, 0.09%Co / 0.29m (73.25-73.54m) and 1.10%Ni, 0.53%Cu, 0.03%Co / 0.48m (74.35-74.83m).

Borehole UTEM: In-hole response centered @ 72m & 76m. Correlates with intersected mineralization.

Detailed Lithology

From	To		Lithology
0.00	10.20	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

10.20 31.71 **4s Sausseritized/Tectonized Anorthosite**

This unit consists of fine-grained, white to light gray, non-magnetic, fairly homogeneous anorthosite. Major minerals are plagioclase and alteration minerals (chlorite, ?sericite). Depending on the abundance of alteration minerals and degree of foliation, the rock appears mottled white to light gray; changes in appearance occur on a meter-scale. Where the unit is quartz (+fuchsite) altered, no foliation is apparent; elsewhere, the unit is well-foliated. Mafic dykes/sills have intruded this unit. The lower contact is sharp at 60 degrees tca.

This unit is not mineralized

For a description of the intrusive rocks, see comments of subunits.

Minor Interval

16.43 17.00 **10f Mafic dykes**

Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper and lower contacts are sharp at ~90 degrees tca. The unit is finer-grained within ~2 cm of the upper and lower contacts.

This unit is not mineralized.

Minor Interval

28.89 29.95 **10f Mafic dykes**

Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper contact is sharp but irregular and the lower contact is sharp at ~90 degrees tca. The unit is weakly epidote altered.

This unit is not mineralized.

Alteration	20.35	28.40	Q	Quartz
			P	Pervasive
			W	Weak
			weak to moderate	
Alteration	28.89	29.95	EP	Epidote
			P	Pervasive
			W	Weak
Alteration	30.00	31.71	Q	Quartz
			P	Pervasive
			W	Weak
			weak to moderate, locally fuchsite	
Structure	14.08	14.09	S1	1st Foliation
Structure	21.20	21.21	S1	1st Foliation

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
31.71	50.38	**10f Mafic dykes** Fine-grained dark gray to greenish-black, non-magnetic, homogeneous, well foliated ultramafic rock, composed of amphibole/pyroxene, chlorite, and alteration minerals. The upper contact is sharp at 60 degrees tca, the lower contact is sharp at ~80 degrees tca. The underlying anorthosite has been recrystallized/assimilated over ~10cm. This unit contains trace po, locally parallel to the foliation. **Minor Interval** 37.64 39.20 **4s Sausseritized/Tectonized Anorthosite** Fine to medium grained white to light gray, well foliated, homogeneous, non-magnetic anorthosite. The upper and lower contacts are sharp at 75 and 70 degrees tca, respectively. This unit is not mineralized. **Minor Interval** 44.63 46.37 **4s Sausseritized/Tectonized Anorthosite** Fine to medium grained white to light gray, well foliated, homogeneous, non-magnetic anorthosite. The upper and lower contacts are sharp at 80 degrees tca. This unit is not mineralized. **Minor Interval** 47.00 47.32 **4s Sausseritized/Tectonized Anorthosite** Fine to medium grained white to light gray, well foliated, homogeneous, non-magnetic anorthosite. The upper and lower contacts are sharp at 80 degrees tca. This unit is not mineralized. **Structure** 37.59 37.60 S1 1st Foliation **Structure** 40.12 40.13 S1 1st Foliation												

Detailed Lithology

From	To	Lithology
50.38	105.80	**4s Sausseritized/Tectonized Anorthosite** This unit consists of fine-grained, white to light gray, non-magnetic, fairly homogeneous anorthosite. Major minerals are plagioclase and alteration minerals (chlorite, ?sericite). Depending on the abundance of alteration minerals and degree of foliation, the rock appears mottled white to light gray; changes in appearance occur on a meter-scale. Where the unit is quartz (+fuchsite) altered, no foliation is apparent; elsewhere, the unit is well-foliated. Mafic and ultramafic dykes/sills have intruded this unit. The upper contact is sharp at 80 degrees tca. Between 52.30 and 56.4 m numerous cm-scale mafic and ultramafic xenolitys/dyklets, locally with trace po, occur. The total thickness of this unit is not known as the hole was shut down. This unit is not mineralized For a description of the intrusive rocks, see comments of subunits. **Minor Interval** 71.08 71.84 **6 Undivided Ultramafic Intrusive** Fine-grained dark gray to greenish-black, non-magnetic, homogeneous, well foliated ultramafic subunit. The upper contact is sharp at 60 degrees tca, the lower contact is sharp but irregular. The upper ~35 cm of this unit are characterized by mm-scale fibrous ?serpentine minerals that appear as 1 - 2 mm long white grains on the cut core surface. The lower ~40 cm of this unit contains ~15% remobilized sulfide veinlets (po, cpy, pn, py). **Minor Interval** 72.32 73.54 **10f Mafic dykes** Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper and lower contact are sharp but irregular. An anorthositic xenolith occurs between 73.25 and 73.35 m. This unit contains trace sulfides in its upper portion. The lower contact is characterized by an ~9cm remobilized massive sulfide veinlet, consisting of po, cpy, and pn (eyes). Cpy is more abundant along the lower contact within the massive sulfide. **Minor Interval** 74.35 74.83 **6 Undivided Ultramafic Intrusive** Fine-grained dark gray to greenish-black, non-magnetic, homogeneous, well foliated ultramafic subunit. The upper contact is sharp at ~90 degrees tca, the lower contact is sharp at 80 degrees tca. This unit contain ~15% remobilized sulfide veinlets (po, cpy, pn). The lower ~15 cm contains black mm -scale ?chlorite-bearing bands that are softer than the rest of the rock.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03858	70.00	71.08	1.08	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25
PG03859	71.08	71.45	0.37	0.03	0.03	0.01	0.02	0.02	0.02	0.01	0.25
PG03860	71.45	71.84	0.39	1.65	0.78	0.04	7.01	0.05	0.07	0.02	0.80
PG03861	71.84	72.32	0.48	0.08	0.07	0.01	0.40	0.01	0.01	0.01	0.25
PG03862	72.32	73.25	0.93	0.03	0.03	0.01	0.19	0.01	0.01	0.01	0.25
PG03863	73.25	73.54	0.29	2.97	2.16	0.09	14.40	0.08	0.07	0.02	2.20
PG03864	73.54	74.35	0.81	0.06	0.03	0.01	0.21	0.01	0.01	0.01	0.25
PG03865	74.35	74.83	0.48	1.10	0.53	0.03	5.05	0.03	0.03	0.04	0.25
PG03866	74.83	76.00	1.17	0.03	0.03	0.01	0.04	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Minor Interval

92.50 97.39 **10f Mafic dykes**

Fine to medium-grained dark gray to greenish-black, non-magnetic, homogeneous, foliated mafic dyke/sill. The upper and lower contact are sharp but irregular and sharp at 50 degrees tca, respectively. This unit is weakly pervasively epidote altered.

This unit is not mineralized.

Minor Interval

104.72 105.80 **10f Mafic dykes**

Fine to medium-grained dark gray to greenish-black, non-magnetic, homogeneous, foliated mafic dyke/sill. The lower contact is sharp but irregular; the lower contact is not known as the hole was shut down.

This unit is not mineralized.

Alteration	65.50	71.00	Q	Quartz
			P	Pervasive
			M	Moderate
			weak to moderate, locally with fuchsite	
Alteration	79.35	105.80	Q	Quartz
			P	Pervasive
			W	Weak
			weak to moderate, locally with fuchsite and/or epid	
Alteration	92.56	97.39	EP	Epidote
			P	Pervasive
			W	Weak
Structure	54.69	54.70	S1	1st Foliation
Structure	62.05	62.06	S1	1st Foliation
Structure	65.41	65.42	S1	1st Foliation
Structure	78.55	78.56	S1	1st Foliation
Structure	81.78	81.79	S1	1st Foliation
Structure	91.21	91.22	S1	1st Foliation
Structure	102.80	102.81	S1	1st Foliation

Espedalen - Analysis

Hole Number: ES2005-28

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03858	70.00	71.08	1.08	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG03859	71.08	71.45	0.37	0.03	0.03	0.01	0.02	0.01	0.02	0.02	0.25																
PG03860	71.45	71.84	0.39	1.65	0.78	0.04	7.01	0.02	0.05	0.07	0.80																
PG03861	71.84	72.32	0.48	0.08	0.07	0.01	0.40	0.01	0.01	0.01	0.25																
PG03862	72.32	73.25	0.93	0.03	0.03	0.01	0.19	0.01	0.01	0.01	0.25																
PG03863	73.25	73.54	0.29	2.97	2.16	0.09	14.40	0.02	0.08	0.07	2.20																
PG03864	73.54	74.35	0.81	0.06	0.03	0.01	0.21	0.01	0.01	0.01	0.25																
PG03865	74.35	74.83	0.48	1.10	0.53	0.03	5.05	0.04	0.03	0.03	0.25																
PG03866	74.83	76.00	1.17	0.03	0.03	0.01	0.04	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-28

Depth	Conductivity (Siemens)	COMMENTS
71.60	300.00	Uncut core
73.45	999.00	3000S - uncut core
74.55	250.00	Uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-28

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
11.00	0.16	
12.00	0.12	
13.00	0.02	
14.00	0.04	
15.00	0.10	
16.00	0.07	
17.00	0.05	
18.00	0.19	
19.00	0.18	
20.00	0.23	
21.00	0.04	
22.00	0.03	
23.00	0.06	
24.00	0.09	
25.00	0.23	
26.00	0.04	
27.00	0.07	
28.00	0.10	
29.00	0.54	
30.00	0.06	
31.00	0.10	
32.00	0.49	
33.00	0.41	
34.00	0.33	
35.00	0.25	
36.00	0.25	
37.00	0.41	
38.00	0.16	
39.00	0.16	
40.00	0.33	
41.00	0.25	
42.00	0.48	
43.00	0.38	
44.00	0.35	
45.00	0.17	
46.00	0.18	
47.00	0.42	
48.00	0.52	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-28

49.00	0.48	
50.00	0.41	
51.00	0.14	
52.00	0.22	
53.00	0.15	
54.00	0.44	
55.00	0.13	
56.00	0.11	
57.00	0.10	
58.00	0.36	
59.00	0.52	
60.00	0.10	
61.00	0.12	
62.00	0.12	
63.00	0.17	
64.00	0.13	
65.00	0.19	
66.00	0.09	
67.00	0.13	
68.00	0.10	
69.00	0.07	
70.00	0.58	
71.00	0.23	
72.00	2.48	
73.00	1.33	
74.00	0.33	
75.00	0.25	
76.00	0.77	
77.00	0.12	
78.00	0.23	
79.00	0.16	
80.00	0.03	
81.00	0.07	
82.00	0.13	
83.00	0.10	
84.00	0.06	
85.00	0.07	
86.00	0.04	
87.00	0.17	
88.00	0.03	
89.00	0.06	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-28
90.00	0.14	
91.00	0.04	
92.00	0.10	
93.00	0.42	
94.00	0.58	
95.00	0.49	
96.00	0.51	
97.00	0.38	
98.00	0.08	
99.00	0.10	
100.00	0.04	
101.00	0.05	
102.00	0.27	
103.00	0.06	
104.00	0.05	
105.00	0.35	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-28

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
0.00	10.20	100	100	N	CASING
10.20	12.00	55	100	N	
12.00	15.00	75	100	N	
15.00	18.00	80	100	N	
18.00	21.00	47	100	N	
21.00	24.00	54	100	N	
24.00	27.00	77	100	N	
27.00	30.00	58	100	N	
30.00	33.00	76	100	N	
33.00	36.00	89	100	N	
36.00	39.00	72	100	N	
39.00	42.00	91	100	N	
42.00	45.00	81	100	N	
45.00	48.00	76	100	N	
48.00	51.00	68	100	N	
51.00	54.00	78	100	N	
54.00	57.00	89	100	N	
57.00	60.00	86	100	N	
60.00	63.00	67	100	N	
63.00	66.00	75	100	N	
66.00	69.00	78	100	N	
69.00	72.00	79	100	N	
72.00	75.00	70	100	N	
75.00	78.00	71	100	N	
78.00	81.00	29	100	N	
81.00	84.00	63	100	N	
84.00	87.00	69	100	N	
87.00	90.00	70	100	N	
90.00	93.00	90	100	N	
93.00	96.00	72	100	N	
96.00	99.00	61	100	N	
99.00	102.00	57	100	N	
102.00	105.80	62	100	N	

Detailed Log

Hole Number: **ES2005-29** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	4/13/2005	Pulse EM Survey:	Y			Logged by:	Lars Weiershaeuser
Date Completed:	4/15/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,800,881.78	Local Northing:	3310.00
UTM Easting:	535,878.97	Local Easting:	2200.00
Elevation: 959.56			

Collar Dip:	-64.43
Collar Azimuth:	232.60
Length:	88.20

Comments

Purpose: Test UTEM conductor on L12200E, within centre of interpreted plate (conductance = 570 Siemens).

Result: Intersected a moderate shear zone within host anorthosite from 57.66-58.70m. The upper contact was weakly to moderately mineralized (20% stringer sulphides (py-po)) from 57.66-57.90m (0.34m).

Assays: 0.94%Ni, 0.44%Cu, 0.07%Co / 0.30m (57.60-57.90m)

Borehole UTEM: In-hole edge response (in-hole 56m, edge 62m), main part of conductor down-dip? Intersected mineralization between 57.60-57.90m.

Detailed Lithology

From	To		Lithology
0.00	20.75	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

20.75 39.20 **4s Sausseritized/Tectonized Anorthosite**

This unit consists of fine-grained, white to light gray, non-magnetic, fairly homogeneous anorthosite. Major minerals are plagioclase and alteration minerals (quartz, chlorite, epidote, fuchsite, ?sericite). Depending on the abundance of alteration minerals and degree of foliation, the rock appears mottled white to light gray; changes in appearance occur on a meter-scale. Where the unit is quartz (+fuchsite) altered, no foliation is apparent; elsewhere, the unit is well-foliated. An ultramafic dyke/sill has intruded this unit. The lower contact is sharp at ~50 degrees tca.

This unit is not mineralized

For a description of the intrusive rock, see comments of subunit.

Minor Interval

37.35 37.79 **6e Ultramafic Schist**

This unit is a black, non-magnetic, homogeneous, well-foliated ultramafic schist. The core is very broken up so that contact relationships with the anorthosite wallrock can not be determined.

This unit is not mineralized.

Alteration	22.00	39.20	Q	Quartz
			P	Pervasive
			W	Weak
			weak to moderate, locally with epidote and/or fuchs	
Structure	21.80	21.81	S1	1st Foliation
Structure	31.12	31.13	S1	1st Foliation

39.20 47.54 **10f Mafic dykes**

Fine-grained dark gray to greenish-black, non-magnetic, homogeneous, well foliated mafic rock, composed of amphibole/pyroxene, chlorite, and alteration minerals. This unit is mafic close to the hanging wall and footwall contacts as well as along the contacts with the intercalated anorthosite ?rafts; the unit becomes coarser-grained towards the center. Anorthositie intercalations are located at: 43.00 - 43.29m, 44.19 - 44.45m, 44.83 - 45.34m, and 47.10 - 47.24m. Contacts are sharp to recrystallized/ assimilated. The upper contact is sharp at ~50 degrees tca, the lower contact is sharp at ~80 degrees tca.

This unit contains trace po, locally parallel to the foliation.

Structure	39.95	39.96	S1	1st Foliation
Structure	44.47	44.48	S1	1st Foliation

Detailed Lithology

From	To	Lithology
47.54	88.20	**4s Sausseritized/Tectonized Anorthosite** This unit consists of fine-grained, white to light gray, non-magnetic, fairly homogeneous anorthosite. Major minerals are plagioclase and alteration minerals (quartz, chlorite, epidote, fuchsite, ?sericite). Depending on the abundance of alteration minerals and degree of foliation, the rock appears mottled white to light gray; changes in appearance occur on a meter-scale. Where the unit is quartz (+fuchsite) altered, no foliation is apparent; elsewhere, the unit is well-foliated. A mafic dyke/sill has intruded this unit. The thickness of this unit is not knows as the hole was shut down. This unit is not mineralized For a description of the intrusive rock, see comments of subunit. **Minor Interval** 50.55 52.38 **10f Mafic dykes** Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper and lower contacts are sharp at ~75 degrees tca. This unit is not mineralized. **Minor Interval** 57.66 58.70 **4s Sausseritized/Tectonized Anorthosite** Possible fault zone. This section of the anorthosite is characterized by brecciation, slightly stronger foliation, mylonitic material, and iron oxides along the foliation (ground water infiltration?). The top ~25cm of this unit contains abundant fine-grained pyrite (locally exhibiting cubic habit) and pyrrhotite. **Alteration** 69.00 88.17 Q Quartz P Pervasive W Weak weak to moderate, locally with epidote and/or fuchs **Structure** 50.20 50.21 S1 1st Foliation **Structure** 59.66 59.67 S1 1st Foliation **Structure** 64.38 64.39 S1 1st Foliation **Structure** 72.15 72.16 S1 1st Foliation **Structure** 77.86 77.87 S1 1st Foliation **Structure** 86.30 86.31 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03867	56.50	57.60	1.10	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25
PG03868	57.60	57.90	0.30	0.94	0.44	0.07	9.66	0.03	0.03	0.03	0.25
PG03869	57.90	58.70	0.80	0.05	0.03	0.01	0.40	0.01	0.01	0.01	0.25
PG03870	58.70	60.00	1.30	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2005-29

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03867	56.50	57.60	1.10	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25																
PG03868	57.60	57.90	0.30	0.94	0.44	0.07	9.66	0.03	0.03	0.03	0.25																
PG03869	57.90	58.70	0.80	0.05	0.03	0.01	0.40	0.01	0.01	0.01	0.25																
PG03870	58.70	60.00	1.30	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-29

Depth	Conductivity (Siemens)	COMMENTS
57.70	15.00	Cut core
57.80	20.00	Cut core
57.90	30.00	Cut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-29

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
21.00	0.02	
22.00	0.07	
23.00	0.03	
24.00	0.03	
25.00	0.03	
26.00	0.03	
27.00	0.02	
28.00	0.03	
29.00	0.05	
30.00	0.03	
31.00	0.03	
32.00	0.06	
33.00	0.04	
34.00	0.08	
35.00	0.06	
36.00	0.05	
37.00	0.03	
38.00	0.03	
39.00	0.06	
40.00	0.37	
41.00	0.49	
42.00	0.49	
43.00	0.39	
44.00	0.72	
45.00	0.16	
46.00	0.43	
47.00	0.46	
48.00	0.16	
49.00	0.14	
50.00	0.16	
51.00	0.33	
52.00	0.16	
53.00	0.14	
54.00	0.19	
55.00	0.17	
56.00	0.14	
57.00	0.12	
58.00	0.20	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-29
59.00	0.17	
60.00	0.24	
61.00	0.14	
62.00	0.10	
63.00	0.15	
64.00	0.16	
65.00	0.21	
66.00	0.14	
67.00	0.11	
68.00	0.10	
69.00	0.13	
70.00	0.07	
71.00	0.08	
72.00	0.01	
73.00	0.03	
74.00	0.05	
75.00	0.12	
76.00	0.06	
77.00	0.07	
78.00	0.06	
79.00	0.03	
80.00	0.04	
81.00	0.04	
82.00	0.01	
83.00	0.01	
84.00	0.07	
85.00	0.02	
86.00	0.02	
87.00	0.06	
88.00	0.01	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-29

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
0.00	20.75	100	100	N	CASING
20.75	24.00	16	100	N	
24.00	27.00	58	100	N	
27.00	30.00	58	100	N	
30.00	33.00	23	100	N	
33.00	36.00	23	100	N	
36.00	39.00	37	100	N	
39.00	42.00	24	100	N	
42.00	45.00	67	100	N	
45.00	48.00	53	100	N	
48.00	51.00	56	100	N	
51.00	54.00	47	100	N	
54.00	57.00	59	100	N	
57.00	60.00	47	100	N	
60.00	63.00	49	100	N	
63.00	66.00	74	100	N	
66.00	69.00	64	100	N	
69.00	72.00	83	100	N	
72.00	75.00	59	100	N	
75.00	78.00	69	100	N	
78.00	81.00	54	100	N	
81.00	84.00	76	100	N	
84.00	88.17	59	100	N	

Detailed Log

Hole Number: **ES2005-30** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	4/23/2005	Pulse EM Survey:	N			Logged by:	Trevor Blair
Date Completed:	4/25/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,800,823.50	Local Northing:	3340.00
UTM Easting:	535,965.27	Local Easting:	2300.00
Elevation: 956.92			

Collar Dip:	-65.00
Collar Azimuth:	230.00
Length:	88.90

Comments

Purpose: Test UTEM conductor on L12300E, within centre of interpreted plate (conductance = 825 Siemens).

Result: Intersected several cm to dm scale remobilized massive sulphide (po-pn-cpy) veinlets within ultramafic intrusives from 48.40-48.70m (0.30m) and within host anorthosite from 47.53-47.70m (0.17m) and 49.87-49.97m (0.10m).

Assays: 1.44%Ni, 0.33%Cu, 0.05%Co / 1.35m (47.35-48.70m) including 1.63%Ni, 0.40%Cu, 0.04%Co / 0.50m (47.35-47.85m) and 3.68%Ni, 0.58%Cu, 0.11%Co / 0.30m (48.40-48.70m).

Borehole UTEM: No survey -> hole blocked.

Detailed Lithology

From	To		Lithology
0.00	11.70	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
11.70	88.90	**4s Sausseritized/Tectonized Anorthosite**

Medium grained, well foliated, grey-white-green, heterogenous, non-magnetic, sausseritized anorthosite composed of varying amounts of plagioclase, chlorite, sericite, epidote, fuchsite, hematite. This unit is intermixed with dm to m scale mafic intrusives which appear as fine grained, green-grey, non-magnetic, well foliated, unmineralized intrusions (dykes/sills) (see minor units for contact relationships and interval lengths).

This unit contains ~2.50m (47.53-49.97m) of host rock which contains cm scale remobilized sulphide veinlets, either along mafic dyke/anorthosite contacts or as crosscutting veinlets within the anorthosite itself. Anorthosite has been altered proximal to veinlets, resulting in dark green, cm scale amorphous haloes (chlorite) with mm to locally cm scale rounded to semi-angular fragments (chlorite, biotite, anorthosite). Some quartz flooding is also apparent.

The lower contact of this unit is unknown as the hole was stopped.

Minor Interval

27.80 29.10 **10f Mafic dykes**
The upper and lower contacts of this unit are sharp at 70 and 80 degrees to the ca, respectively.

Minor Interval

32.35 34.10 **10f Mafic dykes**
The upper contact of this unit is sharp at 60 to the ca, with the lower contact lost in broken core.

Minor Interval

37.08 39.90 **10f Mafic dykes**
The upper and lower contacts of this unit are sharp at 80 and 70 degrees to the ca, respectively.

Minor Interval

49.97 52.45 **10f Mafic dykes**
The upper contact of this unit is irregular with a sharp lower contact at 85 degrees to the ca.

Mineralization	47.53	47.70	2.0%	Pn	Pentlandite
				EY	Eyes
Mineralization	47.53	47.70	3.0%	Cpy	Chalcopyrite
				STR	Stringers
Mineralization	47.53	47.70	40.0%	Po	Pyrrhotite
				STR	Stringers
Mineralization	48.40	48.70	2.0%	Pn	Pentlandite
				EY	Eyes
				UM host rock?	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03906	46.00	47.35	1.35	0.06	0.06	0.01	0.29	0.01	0.01	0.01	0.25
PG03907	47.35	47.85	0.50	1.63	0.40	0.04	6.54	0.03	0.04	0.01	0.70
PG03908	47.85	48.40	0.55	0.03	0.12	0.01	0.20	0.01	0.02	0.01	0.25
PG03909	48.40	48.70	0.30	3.68	0.58	0.11	18.60	0.07	0.09	0.01	0.25
PG03910	48.70	49.97	1.27	0.39	0.34	0.03	2.58	0.01	0.01	0.01	0.25
PG03911	49.97	51.00	1.03	0.03	0.03	0.01	0.22	0.01	0.01	0.01	0.25
PG03912	51.00	52.45	1.45	0.09	0.05	0.01	0.54	0.01	0.01	0.01	0.25
PG03913	52.45	53.00	0.55	0.03	0.08	0.01	0.08	0.01	0.01	0.01	0.25

Detailed Lithology							Assay Data											
From	To	Lithology					Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Mineralization	48.40	48.70	3.0%	Cpy Chalcopyrite STR Stringers UM host rock?												
		Mineralization	48.40	48.70	20.0%	Po Pyrrhotite STR Stringers UM host rock?												
		Mineralization	49.87	49.97	5.0%	Po Pyrrhotite STR Stringers Cm scale remobilized veinlets along lowe contact (+pn, cpy)												
		Structure	25.50	25.51	S1	1st Foliation												
		Structure	41.50	41.51	S1	1st Foliation												
		Structure	51.00	51.01	S1	1st Foliation												
		Structure	57.50	57.51	S1	1st Foliation												
		Structure	71.25	71.26	S1	1st Foliation												
		Structure	82.60	82.61	S1	1st Foliation												

Espedalen - Analysis

Hole Number: ES2005-30

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03906	46.00	47.35	1.35	0.06	0.06	0.01	0.29	0.01	0.01	0.01	0.25																
PG03907	47.35	47.85	0.50	1.63	0.40	0.04	6.54	0.01	0.03	0.04	0.70																
PG03908	47.85	48.40	0.55	0.03	0.12	0.01	0.20	0.01	0.01	0.02	0.25																
PG03909	48.40	48.70	0.30	3.68	0.58	0.11	18.60	0.01	0.07	0.09	0.25																
PG03910	48.70	49.97	1.27	0.39	0.34	0.03	2.58	0.01	0.01	0.01	0.25																
PG03911	49.97	51.00	1.03	0.03	0.03	0.01	0.22	0.01	0.01	0.01	0.25																
PG03912	51.00	52.45	1.45	0.09	0.05	0.01	0.54	0.01	0.01	0.01	0.25																
PG03913	52.45	53.00	0.55	0.03	0.08	0.01	0.08	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-30

Depth	Conductivity (Siemens)	COMMENTS
47.60	999.00	C=1200S on uncut core
48.55	999.00	C=1000S on uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-30

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
12.00	0.05	
13.00	0.03	
14.00	0.04	
15.00	0.06	
16.00	0.04	
17.00	0.02	
18.00	0.03	
19.00	0.02	
20.00	0.04	
21.00	0.07	
22.00	0.06	
23.00	0.06	
24.00	0.05	
25.00	0.16	
26.00	0.16	
27.00	0.67	
28.00	0.37	
29.00	0.76	
30.00	0.16	
31.00	0.16	
32.00	0.23	
33.00	0.26	
34.00	0.45	
35.00	0.11	
36.00	0.17	
37.00	0.18	
38.00	0.44	
39.00	0.53	
40.00	0.22	
41.00	0.27	
42.00	0.16	
43.00	0.18	
44.00	0.16	
45.00	0.17	
46.00	0.21	
47.00	0.35	
48.00	0.21	
49.00	0.18	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-30
50.00	0.64	
51.00	0.53	
52.00	0.45	
53.00	0.18	
54.00	0.27	
55.00	0.16	
56.00	0.15	
57.00	0.16	
58.00	0.15	
59.00	0.15	
60.00	0.20	
61.00	0.14	
62.00	0.17	
63.00	0.16	
64.00	0.17	
65.00	0.13	
66.00	0.15	
67.00	0.08	
68.00	0.27	
69.00	0.22	
70.00	0.08	
71.00	0.10	
72.00	0.12	
73.00	0.13	
74.00	0.08	
75.00	0.05	
76.00	0.12	
77.00	0.06	
78.00	0.03	
79.00	0.21	
80.00	0.05	
81.00	0.16	
82.00	0.10	
83.00	0.10	
84.00	0.09	
85.00	0.11	
86.00	0.24	
87.00	0.09	
88.00	0.04	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-30

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
11.70	15.00	64	100	N	
15.00	18.00	64	100	N	
18.00	21.00	60	100	N	
21.00	24.00	84	100	N	
24.00	27.00	77	100	N	
27.00	30.00	44	100	N	
30.00	33.00	37	100	N	
33.00	36.00	32	100	N	
36.00	39.00	63	100	N	
39.00	42.00	87	100	N	
42.00	45.00	91	100	N	
45.00	48.00	90	100	N	
48.00	51.00	74	100	N	
51.00	54.00	89	100	N	
54.00	57.00	88	100	N	
57.00	60.00	88	100	N	
60.00	63.00	75	100	N	
63.00	66.00	67	100	N	
66.00	69.00	62	100	N	
69.00	72.00	82	100	N	
72.00	75.00	79	100	N	
75.00	78.00	83	100	N	
78.00	81.00	79	100	N	
81.00	84.00	63	100	N	
84.00	87.00	65	100	N	
87.00	88.90	94	100	N	

Detailed Log

Hole Number: **ES2005-31** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	4/16/2005	Pulse EM Survey:	Y			Logged by:	Lars Weiershaeuser
Date Completed:	4/17/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,151.65	Local Northing:	3135.00
UTM Easting:	535,421.83	Local Easting:	1700.00
Elevation: 968.98			

Collar Dip:	-56.94
Collar Azimuth:	232.90
Length:	131.53

Comments

Purpose: Test 20m down-dip toe on mineralization intersected in hole ES2005-24 (1.19%Ni, 0.42%Cu, 0.05%Co / 8.91m).

Result: Intersected several cm to dm scale remobilized massive sulphide (po-pn-cpy) veinlets within host anorthosite from 92.70-93.15m (0.45m), 94.03-94.50m (0.47m), 95.56-95.91m (0.35m) and 113.25-113.70m (0.45m).

Assays: 0.80%Ni, 0.50%Cu, 0.03%Co / 1.88m (94.03-95.91m) including 1.43%Ni, 1.52%Cu, 0.05%Co / 0.47m (94.03-94.50m) and 2.17%Ni, 0.51%Cu, 0.06%Co / 0.35m (95.56-95.91m).

Borehole UTEM: In-hole response @ 94m, off-hole responses @ 102m & 114m. In-hole response correlates with intersected mineralization. Sulphide veinlets observed between 113.25-113.70m.

Detailed Lithology

From	To		Lithology
0.00	14.25	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
14.25	40.65	**4s Sausseritized/Tectonized Anorthosite** This unit consists of fine-grained, white to light gray, non-magnetic, fairly homogeneous anorthosite. Major minerals are plagioclase and alteration minerals (quartz, chlorite, hematite, ?sericite). Depending on the abundance of alteration minerals and degree of foliation, the rock appears mottled white to light gray, reddish where hematite is abundant; changes in appearance occur on a meter-scale.The unit is well-foliated. Mafic dykes/sills hve intruded this unit. The lower contact is sharp at ~70 degrees tca. This unit is not mineralized For a description of the intrusive rock, see comments of subunit.												
		Minor Interval											
	16.24	21.34	**10f Mafic dykes** Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper and lower contacts are sharp at ~75 and ~80 degrees tca, respectively. The unit is finer-grained within ~2 - 5 cm of the upper and lower contacts. This unit is not mineralized.											
		Minor Interval											
	24.20	27.42	**10f Mafic dykes** Fine-grained dark gray to greenish-black, non-magnetic, homogeneous, well foliated mafic subunit. The upper contact is complex showing weak brecciation and a cm-scale anorthosite raft; and lower contact is sharp at ~50 degrees tca This unit contains trace hematite.											
		Minor Interval											
	35.00	37.52	**10f Mafic dykes** Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper and lower contacts are sharp at ~90 degrees tca. The unit is finer-grained within ~2 - 10cm of the upper and lower contacts. An anorthosite xenolith/raft is located between 37.05 and 37.30 m; the contacts are recrystallized/digested. This unit is not mineralized.											
		Alteration 28.00 28.75 HM Hematite P Pervasive W Weak											
		Structure 15.48 15.49 S1 1st Foliation											
		Structure 32.40 32.41 S1 1st Foliation											
		Structure 38.61 38.62 S1 1st Foliation											

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
40.65	52.54	**10f Mafic dykes** Fine-grained dark gray to greenish-black, non-magnetic, homogeneous, well foliated mafic rock, composed of amphibole/pyroxene, chlorite, and alteration minerals. The upper and lower contacts are sharp at ~70 degrees tca This unit contains trace po, locally parallel to the foliation. **Structure** 44.86 44.87 S1 1st Foliation												

Detailed Lithology

From	To	Lithology
52.54	131.53	**4s Sausseritized/Tectonized Anorthosite** This unit consists of fine-grained, white to light gray, non-magnetic, fairly homogeneous anorthosite. Major minerals are plagioclase and alteration minerals (quartz, chlorite, epidote, hematite, fuchsite ?sericite). Depending on the abundance of alteration minerals and degree of foliation, the rock appears mottled white to light gray, or reddish where hematite is abundant; changes in appearance occur on a meter-scale.Where quartz alteration is abundant no foliation is apparent; elsewhere, the unit is well-foliated. Dm-scale mafic dykelets/small sills have intruded this unit at 55.97 - 56.27 m, 62.75 - 63.04 m, 72.87 - 73.17 m. The contacts are sharp between 40 and 90 degrees tca. A ~7cm wide quartz vein cuts the second dyke (62.75 - 63.04m). Mineralization occurs in dm-wide, chlorite altered intervals. Brecciation, faulting and folding is spatially associated with the mineralization and chlorite alteration. Locally, quartz fills tension gashes, joints, or small faults. Mineralized sections are shown as subunits. For a description of the intrusive rock, see comments of subunit. **Minor Interval** 92.70 93.15 **4s Sausseritized/Tectonized Anorthosite** Mineralized anorthositic subunit. The unit is characterized by abundant chlorite alteration, remobilized sulfides, local brecciation, small-scale faulting, and folding. The upper and lower contacts are gradational over ~5cm. **Minor Interval** 94.03 94.50 **4s Sausseritized/Tectonized Anorthosite** Mineralized anorthositic subunit. The unit is characterized by abundant chlorite alteration, remobilized sulfides, local brecciation, small-scale faulting, and folding. The upper and lower contacts are gradational over ~5cm. **Minor Interval** 95.56 95.91 **4s Sausseritized/Tectonized Anorthosite** Mineralized anorthositic subunit. The unit is characterized by abundant chlorite alteration, remobilized sulfides, local brecciation, small-scale faulting, and folding. The upper and lower contacts are gradational over ~5cm. **Minor Interval** 106.68 111.15 **10f Mafic dykes** Fine to medium-grained, medium gray, non-magnetic, foliated mafic subunit; the upper and lower contacts are sharp at ~60 and ~50 degrees tca, respectively. The unit is finer-grained within ~2 - 5 cm of the upper and lower contacts. This unit is not mineralized.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03871	91.70	92.70	1.00	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25
PG03872	92.70	93.15	0.45	0.61	0.21	0.02	2.33	0.01	0.02	0.01	0.25
PG03873	93.15	94.03	0.88	0.14	0.15	0.01	0.64	0.01	0.01	0.01	0.25
PG03874	94.03	94.50	0.47	1.43	1.52	0.05	7.83	0.03	0.01	0.01	2.50
PG03876	94.50	95.56	1.06	0.07	0.03	0.01	0.29	0.01	0.01	0.01	0.25
PG03877	95.56	95.91	0.35	2.17	0.51	0.06	9.10	0.04	0.04	0.01	0.25
PG03878	95.91	97.00	1.09	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25
PG03879	112.00	113.25	1.25	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25
PG03880	113.25	113.70	0.45	0.72	0.30	0.04	4.89	0.07	0.02	0.01	0.25
PG03881	113.70	115.00	1.30	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Minor Interval

112.27 112.69 **10f Mafic dykes**

Dark gray, fine-grained, non-magnetic, weakly foliated, homogeneous mafic rock. The upper and lower contacts are sharp but irregular. Darker ?chlorite-rich mm-scale bands, parallel to the overall foliation, are abundant.

The unit contains trace po and cpy.

Minor Interval

113.25 113.70 **4s Sausseritized/Tectonized Anorthosite**

Mineralized anorthositic subunit. The unit is characterized by abundant chlorite alteration, remobilized sulfides, local brecciation, small-scale faulting, and folding. The upper and lower contacts are gradational over ~5cm.

Alteration	62.50	80.43	Q	Quartz
			P	Pervasive
			W	Weak
			weak to moderate, locally with epidote and/or fuchs	
Structure	56.75	56.76	S1	1st Foliation
Structure	62.14	62.15	S1	1st Foliation
Structure	72.11	72.12	S1	1st Foliation
Structure	77.55	77.56	S1	1st Foliation
Structure	81.38	81.39	S1	1st Foliation
Structure	86.22	86.23	S1	1st Foliation
Structure	94.82	94.83	S1	1st Foliation
Structure	100.52	100.53	S1	1st Foliation
Structure	106.29	106.30	S1	1st Foliation
Structure	113.81	113.82	S1	1st Foliation
Structure	118.87	118.88	S1	1st Foliation
Structure	126.76	126.77	S1	1st Foliation

Espedalen - Analysis

Hole Number: ES2005-31

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03871	91.70	92.70	1.00	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG03872	92.70	93.15	0.45	0.61	0.21	0.02	2.33	0.01	0.01	0.02	0.25																
PG03873	93.15	94.03	0.88	0.14	0.15	0.01	0.64	0.01	0.01	0.01	0.25																
PG03874	94.03	94.50	0.47	1.43	1.52	0.05	7.83	0.01	0.03	0.01	2.50																
PG03876	94.50	95.56	1.06	0.07	0.03	0.01	0.29	0.01	0.01	0.01	0.25																
PG03877	95.56	95.91	0.35	2.17	0.51	0.06	9.10	0.01	0.04	0.04	0.25																
PG03878	95.91	97.00	1.09	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25																
PG03879	112.00	113.25	1.25	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25																
PG03880	113.25	113.70	0.45	0.72	0.30	0.04	4.89	0.01	0.07	0.02	0.25																
PG03881	113.70	115.00	1.30	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-31

Depth	Conductivity (Siemens)	COMMENTS
94.10	400.00	Cut core
94.40	775.00	Cut core
95.65	125.00	Cut core
95.85	90.00	Cut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-31

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
15.00	0.21	
16.00	0.34	
17.00	0.52	
18.00	0.28	
19.00	0.62	
20.00	0.43	
21.00	0.53	
22.00	0.08	
23.00	0.21	
24.00	0.07	
25.00	0.29	
26.00	0.45	
27.00	0.42	
28.00	0.15	
29.00	0.17	
30.00	0.23	
31.00	0.12	
32.00	0.21	
33.00	0.07	
34.00	0.27	
35.00	0.40	
36.00	0.37	
37.00	0.45	
38.00	0.18	
39.00	0.09	
40.00	0.14	
41.00	0.45	
42.00	0.46	
43.00	0.38	
44.00	0.46	
45.00	0.49	
46.00	0.46	
47.00	0.41	
48.00	0.32	
49.00	0.46	
50.00	0.45	
51.00	0.45	
52.00	0.37	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-31

53.00	0.20	
54.00	0.18	
55.00	0.15	
56.00	0.31	
57.00	0.15	
58.00	0.27	
59.00	0.20	
60.00	0.05	
61.00	0.19	
62.00	0.05	
63.00	0.22	
64.00	0.09	
65.00	0.09	
66.00	0.14	
67.00	0.09	
68.00	0.06	
69.00	0.24	
70.00	0.02	
71.00	0.07	
72.00	0.17	
73.00	0.26	
74.00	0.05	
75.00	0.14	
76.00	0.09	
77.00	0.12	
78.00	0.08	
79.00	0.11	
80.00	0.06	
81.00	0.12	
82.00	0.10	
83.00	0.04	
84.00	0.09	
85.00	0.04	
86.00	0.34	
87.00	0.04	
88.00	0.06	
89.00	0.02	
90.00	0.05	
91.00		
91.00	0.13	
92.00	0.04	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-31
93.00	0.33	
94.00	3.52	
95.00	0.28	
96.00	0.20	
97.00	0.18	
98.00	0.15	
99.00	0.16	
100.00	0.07	
101.00	0.13	
102.00	0.12	
103.00	0.08	
104.00	0.14	
105.00	0.36	
106.00	0.16	
107.00	0.50	
108.00	0.53	
109.00	0.59	
110.00	0.45	
111.00	1.94	
112.00	0.19	
113.00	0.14	
114.00	0.12	
115.00	0.15	
116.00	0.14	
117.00	0.12	
118.00	0.12	
119.00	0.11	
120.00	0.05	
121.00	0.15	
122.00	0.03	
123.00	0.09	
124.00	0.05	
125.00	0.07	
126.00	0.05	
127.00	0.13	
128.00	0.05	
129.00	0.06	
130.00	0.08	
131.00	0.07	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-31

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
0.00	14.25	100	100	N	CASING
14.25	18.00	57	100	N	
18.00	21.00	59	100	N	
21.00	24.00	46	100	N	
24.00	27.00	12	100	N	
27.00	30.00	53	100	N	
30.00	33.00	85	100	N	
33.00	36.00	76	100	N	
36.00	39.00	80	100	N	
39.00	42.00	91	100	N	
42.00	45.00	70	100	N	
45.00	48.00	80	100	N	
48.00	51.00	64	100	N	
51.00	54.00	85	100	N	
54.00	57.00	92	100	N	
57.00	60.00	69	100	N	
60.00	63.00	87	100	N	
63.00	66.00	85	100	N	
66.00	69.00	65	100	N	
69.00	72.00	76	100	N	
72.00	75.00	74	100	N	
75.00	78.00	79	100	N	
78.00	81.00	71	100	N	
81.00	84.00	89	100	N	
84.00	87.00	53	100	N	
87.00	90.00	85	100	N	
90.00	93.00	74	100	N	
93.00	96.00	88	100	N	
96.00	99.00	94	100	N	
99.00	102.00	97	100	N	
102.00	105.00	77	100	N	
105.00	108.00	68	100	N	
108.00	111.00	100	100	N	
111.00	114.00	89	100	N	
114.00	117.00	78	100	N	
117.00	120.00	70	100	N	
120.00	123.00	89	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-31

123.00	126.00	88	100	N	
126.00	129.00	96	100	N	
129.00	131.53	89	100	N	

Detailed Log

Hole Number: **ES2005-32** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
		Pulse EM Survey:	Y				
Date Started:	4/20/2005	Casing:	Left in Hole, capped				
Date Completed:	4/22/2005	Location:	Surface			Logged by:	Lars Weiershaeuser

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,178.59	Local Northing:	3175.00
UTM Easting:	535,453.50	Local Easting:	1700.00
Elevation:	964.79		

Collar Dip:	-59.99
Collar Azimuth:	233.00
Length:	155.30

Comments

Purpose: Test 20m up-dip toe on mineralization intersected in hole ES2005-24 (1.19%Ni, 0.42%Cu, 0.05%Co / 8.91m).

Result: Intersected several cm to dm scale remobilized massive sulphide (po-pn-cpy) veinlets within mafic dykes from 121.25-123.49m (2.24m).

Assays: 0.71%Ni, 0.22%Cu, 0.03%Co / 2.24m (121.25-123.49m)

Borehole UTEM: Off-hole reponse (<5m away from hole) @ 122m. Intersected sulphide veinlets from 121.25-123.49m.

Detailed Lithology

From	To		Lithology
0.00	16.30	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
16.30	39.23	**10f Mafic dykes** This unit consists of a medium grained, dark gray to greenish-black, non-magnetic, homogeneous, weakly to well-foliated rock. Main minerals are pyroxene/amphibole, chlorite, and other alteration minerals. The contact to the underlying unit is sharp at ~70 degrees tca. Along the footwall contact, intermixed anorthosite ?rafts (18.15 - 18.71m and 25.03 - 25.40m), as well as along the contacts with the minor units, the grain size decreases. The upper ~2m appear mafic and are characterized by 0.5 - 1mm biotite grains. Locally, the contacts with the minor units are intercalated and/or appear recrystallized/digested. The section between 33.14 - 33.3m contains ~50% plagioclase and seems to be a digested xenolith. This unit contains trace po. **Minor Interval** 27.31 31.23 **4s Sausseritized/Tectonized Anorthosite** Fine to medium grained white to light gray,well foliated, homogeneous, non-magnetic anorthosite. The upper contact is sharp but irregular; the lower contact is sharp at 60 degrees tca. This unit is not mineralized. **Structure** 23.57 23.58 S1 1st Foliation **Structure** 35.42 35.43 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03896	36.00	37.50	1.50	0.03	0.03	0.01	0.17	0.01	0.01	0.01	0.25
PG03897	37.50	39.00	1.50	0.03	0.03	0.01	0.22	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
39.23	155.30	**4s Sausseritized/Tectonized Anorthosite** This unit consists of a fine- to medium-grained, non-magnetic, plagioclase-rich rock. Depending on the alteration minerals present the color is white light gray, green-white, or reddish-white. Where alteration is weak, the rock is well foliated; however, even moderate alteration destroys the foliation. The rock is homogeneous on a meter scale. This unit is cut by sub-meter scale mafic dyklets: 55.81 - 56.08, 56.82 - 56.99m, 57.31 - 57.92, 58.3 - 58.53, 74.93 - 75.26m. The contacts in this section are always sharp and irregular or at various core axis angles. Locally, this unit contains sub-mm scale rusted out ?pyrite. See minor unit descriptions for detailed information on those units. The total thickness of this unit could not be determined as the hole was shut down. **Minor Interval** 80.50 91.50 **4s Sausseritized/Tectonized Anorthosite** Anorthositic section that is characterized my numerous cm- to dm-scale more mafic (?noritic) intercalations, which contain abundant sub-mm biotite. **Minor Interval** 96.18 98.58 **10f Mafic dykes** Homogeneous medium gray, non-magnetic, fine-grained mafic subunit. The rock is finer grained within ~10cm of the upper contact. The upper contact is sharp at ~90 degrees tca; the lower contact is sharp but irregular. This unit is not mineralized. **Minor Interval** 119.47 120.50 **10f Mafic dykes** Homogeneous medium gray, non-magnetic, fine-grained, well-foliated mafic subunit. The rock is finer grained within ~5cm of the lower contact. The upper and lower contacts are sharp at ~20 (!) and ~70 degrees tca, respectively. The upper contact coincides with an about 5mm thick quartz vein. Recrystallized plagioclase ?fragments are contained within this unit. This unit is not mineralized.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03898	119.47	120.50	1.03	0.03	0.09	0.01	0.30	0.01	0.01	0.01	0.25
PG03899	120.50	121.25	0.75	0.03	0.08	0.01	0.04	0.01	0.01	0.01	0.25
PG03901	121.25	122.28	1.03	0.66	0.34	0.02	3.68	0.03	0.02	0.01	0.60
PG03902	122.28	123.49	1.21	0.75	0.11	0.03	3.61	0.02	0.02	0.01	0.25
PG03903	123.49	123.97	0.48	0.06	0.03	0.01	0.24	0.01	0.01	0.01	0.25
PG03904	123.97	124.51	0.54	0.60	0.21	0.01	2.45	0.01	0.01	0.01	0.70
PG03905	124.51	126.00	1.49	0.03	0.03	0.01	0.05	0.02	0.02	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Minor Interval												
121.25	123.49	**10f Mafic dykes** Homogeneous medium gray, non-magnetic, fine-grained mafic subunit. The unit is characterized by remobilized mm - cm-scale sulfide veinlets (po, cpy, pn). "Massive" mineralization is located at: 121.93 - 121.95m, 122.93 - 122.97m, and 123.46 - 123.49m. The latter section coincides with the lower contact of this subunit. The upper contact is sharp at ~90 degrees tca; the lower contact is sharp but irregular.											
		Minor Interval											
123.97	124.51	**4s Sausseritized/Tectonized Anorthosite** Dark gray, well-foliated, non -magnetic, chlorite?-altered anorthosite. The alteration is restricted to a mineralized interval where mm-scale remobilized sulfide veinlets (po, pn, cpy) are abundant. The upper and lower contact of this subunit are gradational over ~5cm.											
		Minor Interval											
143.50	145.00	**4s Sausseritized/Tectonized Anorthosite** Locally strongly broken up to completely ground-up core; likely fault zone.											
		Minor Interval											
150.93	153.58	**10f Mafic dykes** Homogeneous medium gray, non-magnetic, fine-grained, well-foliated mafic subunit. The rock is finer grained within ~5cm of the upper and lower contacts. The upper contact is characterized by digested anorthosite wall rock. The lower contact is sharp at ~70 degrees tca. This unit is not mineralized.											
		Minor Interval											
154.93	155.30	**10f Mafic dykes** Homogeneous medium gray, non-magnetic, fine-grained, well-foliated mafic subunit. The rock is finer grained within ~5cm of the upper contact. The upper contact is sharp at ~90 degrees tca; the lower contact is unknown as the hole was shutdown. This unit is not mineralized.											

Alteration	44.25	45.26	EP	Epidote
			P	Pervasive
			M	Moderate

Detailed Lithology						Assay Data											
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Alteration	49.00	51.50	ALT	ALTERATION											
					P	Pervasive											
					M	Moderate											
					fuchsite												
		Alteration	52.00	65.00	EP	Epidote											
					P	Pervasive											
					M	Moderate											
		Alteration	52.00	65.00	Q	Quartz											
					P	Pervasive											
					M	Moderate											
		Alteration	65.00	74.00	HM	Hematite											
					P	Pervasive											
					M	Moderate											
		Alteration	65.00	74.00	Q	Quartz											
					P	Pervasive											
					M	Moderate											
		Alteration	116.00	119.47	ALT	ALTERATION											
					P	Pervasive											
					W	Weak											
					fuchsite												
		Alteration	116.00	119.47	Q	Quartz											
					P	Pervasive											
					W	Weak											
					locally moderate												
		Alteration	116.00	119.47	EP	Epidote											
					P	Pervasive											
					W	Weak											
		Alteration	141.00	147.60	Q	Quartz											
					P	Pervasive											
					W	Weak											
		Alteration	141.00	147.60	EP	Epidote											
					P	Pervasive											
					W	Weak											
		Alteration	141.00	147.60	ALT	ALTERATION											
					P	Pervasive											
					W	Weak											
					fuchsite												

Detailed Lithology

From	To	Lithology			
		Alteration	141.00	147.60	HM Hematite P Pervasive W Weak
		Structure	40.48	40.49	S1 1st Foliation
		Structure	48.18	48.19	S1 1st Foliation
		Structure	57.49	57.50	S1 1st Foliation
		Structure	64.13	64.14	S1 1st Foliation
		Structure	75.30	75.31	S1 1st Foliation
		Structure	93.81	93.82	S1 1st Foliation
		Structure	98.78	98.79	S1 1st Foliation
		Structure	99.92	99.93	S1 1st Foliation
		Structure	103.24	103.25	S1 1st Foliation
		Structure	107.55	107.56	S1 1st Foliation
		Structure	114.38	114.39	S1 1st Foliation
		Structure	126.56	126.57	S1 1st Foliation
		Structure	134.34	134.35	S1 1st Foliation
		Structure	139.76	139.77	S1 1st Foliation
		Structure	147.68	147.69	S1 1st Foliation
		Structure	154.45	154.46	S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Espedalen - Analysis

Hole Number: ES2005-32

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03896	36.00	37.50	1.50	0.03	0.03	0.01	0.17	0.01	0.01	0.01	0.25																
PG03897	37.50	39.00	1.50	0.03	0.03	0.01	0.22	0.01	0.01	0.01	0.25																
PG03898	119.47	120.50	1.03	0.03	0.09	0.01	0.30	0.01	0.01	0.01	0.25																
PG03899	120.50	121.25	0.75	0.03	0.08	0.01	0.04	0.01	0.01	0.01	0.25																
PG03901	121.25	122.28	1.03	0.66	0.34	0.02	3.68	0.01	0.03	0.02	0.60																
PG03902	122.28	123.49	1.21	0.75	0.11	0.03	3.61	0.01	0.02	0.02	0.25																
PG03903	123.49	123.97	0.48	0.06	0.03	0.01	0.24	0.01	0.01	0.01	0.25																
PG03904	123.97	124.51	0.54	0.60	0.21	0.01	2.45	0.01	0.01	0.01	0.70																
PG03905	124.51	126.00	1.49	0.03	0.03	0.01	0.05	0.01	0.02	0.02	0.25																

Espedalen - Conductivity

Hole Number: ES2005-32

Depth	Conductivity (Siemens)	COMMENTS
121.60	125.00	Cut core
122.96	750.00	Cut core
123.48	400.00	Cut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-32

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
17.00	0.15	
18.00	0.30	
19.00	0.44	
20.00	0.40	
21.00	0.44	
22.00	0.35	
23.00	0.46	
24.00	0.43	
25.00	0.38	
26.00	0.46	
27.00	0.48	
28.00	0.16	
29.00	0.15	
30.00	0.19	
31.00	0.21	
32.00	0.43	
33.00	0.79	
34.00	0.37	
35.00	0.51	
36.00	0.51	
37.00	0.48	
38.00	0.41	
39.00	0.44	
40.00	0.16	
41.00	0.16	
42.00	0.38	
43.00	0.23	
44.00	0.27	
45.00	0.02	
46.00	0.14	
47.00	0.07	
48.00	0.18	
49.00	0.17	
50.00	0.13	
51.00	0.04	
52.00	0.04	
53.00	0.03	
54.00	0.04	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-32

55.00	0.02	
56.00	0.19	
57.00	0.04	
58.00	0.04	
59.00	0.04	
60.00	0.05	
61.00	0.06	
62.00	0.03	
63.00	0.04	
64.00	0.10	
65.00	0.03	
66.00	0.03	
67.00	0.05	
68.00	0.06	
69.00	0.05	
70.00	0.03	
71.00	0.02	
72.00	0.04	
73.00	0.03	
74.00	0.04	
75.00	0.22	
76.00	0.04	
77.00	0.07	
78.00	0.12	
79.00	0.17	
80.00	0.18	
81.00	0.18	
82.00	0.22	
83.00	0.21	
84.00	0.18	
85.00	0.24	
86.00	0.21	
87.00	0.69	
88.00	0.24	
89.00	0.08	
90.00	0.24	
91.00	0.20	
92.00	0.17	
93.00	0.17	
94.00	0.17	
95.00	0.19	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-32
96.00	0.22	
97.00	0.55	
98.00	0.48	
99.00	0.30	
100.00	0.97	
101.00	0.24	
102.00	0.26	
103.00	0.19	
104.00	0.13	
105.00	0.24	
106.00	0.14	
107.00	0.17	
108.00	0.43	
109.00	0.16	
110.00	0.09	
111.00	0.13	
112.00	0.02	
113.00	0.10	
114.00	1.32	
115.00	0.18	
116.00	0.12	
117.00	0.11	
118.00	0.21	
119.00	0.11	
120.00	0.78	
121.00	0.10	
122.00	1.34	
123.00	1.31	
124.00	0.70	
125.00	0.26	
126.00	0.19	
127.00	0.10	
128.00	0.22	
129.00	0.10	
130.00	0.11	
131.00	0.15	
132.00	0.07	
133.00	0.03	
134.00	0.08	
135.00	0.11	
136.00	0.07	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-32
137.00	0.06	
138.00	0.04	
139.00	0.20	
140.00	0.15	
141.00	0.08	
142.00	0.10	
143.00	0.03	
144.00	0.05	
145.00	0.11	
146.00	0.05	
147.00	0.04	
148.00	0.14	
149.00	0.09	
150.00	0.08	
151.00	0.52	
152.00	0.68	
153.00	0.66	
154.00	0.18	
155.00	0.56	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-32

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
0.00	16.30	100	100	N	CASING
16.30	18.00	6	100	N	
18.00	21.00	19	100	N	
21.00	24.00	17	100	N	
24.00	27.00	49	100	N	
27.00	30.00	42	100	N	
30.00	33.00	85	100	N	
33.00	36.00	67	100	N	
36.00	39.00	74	100	N	
39.00	42.00	37	100	N	
42.00	45.00	67	100	N	
45.00	48.00	59	100	N	
48.00	51.00	75	100	N	
51.00	54.00	75	100	N	
54.00	57.00	68	100	N	
57.00	60.00	71	100	N	
60.00	63.00	87	100	N	
63.00	66.00	66	100	N	
66.00	69.00	93	100	N	
69.00	72.00	86	100	N	
72.00	75.00	76	100	N	
75.00	78.00	69	100	N	
78.00	81.00	75	100	N	
81.00	84.00	73	100	N	
84.00	87.00	84	100	N	
87.00	90.00	68	100	N	
90.00	93.00	48	100	N	
93.00	96.00	88	100	N	
96.00	99.00	86	100	N	
99.00	102.00	80	100	N	
102.00	105.00	88	100	N	
105.00	108.00	74	100	N	
108.00	111.00	62	100	N	
111.00	114.00	85	100	N	
114.00	117.00	87	100	N	
117.00	120.00	84	100	N	
120.00	123.00	74	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-32

123.00	126.00	64	100	N	
126.00	129.00	97	100	N	
129.00	132.00	96	100	N	
132.00	135.00	76	100	N	
135.00	138.00	73	100	N	
138.00	141.00	82	100	N	
141.00	144.00	63	100	N	
144.00	147.00	43	100	N	
147.00	150.00	94	100	N	
150.00	153.00	86	100	N	
153.00	155.30	100	100	N	

Detailed Log

Hole Number: **ES2005-33** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	Y	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	4/18/2005	Pulse EM Survey:	Y			Logged by:	Trevor Blair
Date Completed:	4/19/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,254.17	Local Northing:	3056.00
UTM Easting:	535,233.39	Local Easting:	1500.00
Elevation:	967.98		

Collar Dip:	-65.18
Collar Azimuth:	226.58
Length:	128.00

Comments

Purpose: Test 17m down-dip toe on mineralization intersected in hole ES2005-20 (2.81%Ni, 1.11%Cu, 0.08%Co / 10.17m (65.43-75.06m)).

Result: Intersected several cm to dm scale remobilized massive sulphide (po-pn-cpy) veinlets within host anorthosite from 65.90-66.30m (0.40m) and 86.50-86.87m (0.37m). A massive sulphide (po-pn-cpy) veinlet was also intersected within anorthosite from 87.70-87.80m (0.10m).

Assays: 1.68%Ni, 0.32%Cu, 0.07%Co / 0.40m (65.90-66.30m)
0.91%Ni, 0.21%Cu, 0.04%Co / 1.55m (86.50-88.05m) including 1.81%Ni, 0.54%Cu, 0.05%Co / 0.50m (86.50-86.87m) and 1.98%Ni, 0.23%Cu, 0.08%Co / 0.35m (87.70-88.05m)

Borehole UTEM: Predominantly off-hole response @ 80m (5-10m away) with in-hole spikes @ 65m & 87m. In-hole spikes correlate with intersected mineralization.

Detailed Lithology

From	To	Lithology
0.00	2.60	**C Casing**
2.60	14.85	**10f Mafic dykes** Fine grained, dark green, homogenous, well foliated, non-magnetic mafic dyke/sill composed of biotite, chlorite and pyroxenes (appear white on cut surfaces). This unit contains trace to 1% fine grained pyrrhotite. The lower contact of this unit is sharp at 75 degrees to the ca. **Minor Interval** 2.60 3.50 **4s Sausseritized/Tectonized Anorthosite** Beginning of hole is within anorthosite. Granitic boulders cored in overburden. **Structure** 8.50 8.51 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
2.60	14.85	**10f Mafic dykes** Fine grained, dark green, homogenous, well foliated, non-magnetic mafic dyke/sill composed of biotite, chlorite and pyroxenes (appear white on cut surfaces). This unit contains trace to 1% fine grained pyrrhotite. The lower contact of this unit is sharp at 75 degrees to the ca. **Minor Interval** 2.60 3.50 **4s Sausseritized/Tectonized Anorthosite** Beginning of hole is within anorthosite. Granitic boulders cored in overburden. **Structure** 8.50 8.51 S1 1st Foliation												
14.85	52.95	**4s Sausseritized/Tectonized Anorthosite** Medium grained, white-grey-green, non-magnetic, homogenous anorthosite composed of various amounts of plagioclase, chlorite and alteration minerals (resulting from sausseritization, epidotization). This unit contains local disseminated pyrrhotite-pyrite. The lower contact of this unit is sharp at 65 degrees to the ca. **Minor Interval** 26.22 26.50 **10f Mafic dykes** Fine grained, non-magnetic, homogenous, grey, unmineralized mafic dyke. Upper and lower contacts are both sharp at 40 and 70 degrees to the ca, respectively. **Structure** 21.00 21.01 S1 1st Foliation **Structure** 46.30 46.31 S1 1st Foliation												
52.95	60.75	**10f Mafic dykes** Fine grained, non-magnetic, homogenous, grey-green, massive to weakly foliated mafic dyke composed of chlorite, plagioclase and biotite. This unit is unmineralized. The lower contact of this unit is sharp at 65 degrees to the ca.												

Detailed Lithology

From	To	Lithology
60.75	128.00	**4s Sausseritized/Tectonized Anorthosite** Medium grained, highly tectonized, white-green, non-magnetic, heterogenous anorthosite. This unit contains patchy to pervasive (banded) sausseritization, epidotization , hematization and possibly sericitization. The unit contains 65-80% plagioclase (variably altered) and 20-35% alteration minerals (chlorite, hematite, sericite?, fuchsite?) This unit contains dm to m scale mafic dykes/sills which locally contain xenoliths of country rock (anorthosite). These mafic intervals are generally well foliated, fine grained, light to dark green, homogenous units that are unmineralized. See minor units for intervals as well as contact relationships. The anorthosite is crosscut by several mm to cm scale massive sulphide veinlets. These veinlets generally contain mm to cm scale altered haloes (chlorite), which appear as dark grey to black envelopes. These haloes give the appearance of mineralized mafic to ultramafic regions, whereas they are truly alteration derived. See mineralization tabs for intervals. The lower contact of this unit is unknown as the hole was completed.
		Minor Interval
80.65	84.70	**10f Mafic dykes** The upper contact of this unit is unknown as it is within broken core, the lower contact is variable as digestion of anorthosite occurs parallel to foliation planes - 55 degrees to the ca.
		Minor Interval
85.03	86.20	**6 Undivided Ultramafic Intrusive** Fine grained, dark grey to black, non-magnetic, well foliated unit composed primarily of chlorite and talc (+-biotite). Precursor rock unkonwn (mafic/ultramafic dyke completed altered?). Texturally, the rock appears identical to host anothosite (alternating cm scale bands of plagioclase and chlorite) although no remenant plagioclase. AFU! Typical anorthosite occurs from 85.20-85.58m. This altered unit contains trace fine grained pyrrhotite +-chalcopyrite. The upper and lower contacts are sharp at 80 and 65 degrees to the ca, respectively.
		Minor Interval
86.87	87.37	**10f Mafic dykes** The upper and lower contacts of this unit are sharp at 45 and 90 degrees to the ca, respectively.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03882	64.60	65.90	1.30	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25
PG03883	65.90	66.30	0.40	1.68	0.32	0.07	9.17	0.03	0.03	0.01	0.25
PG03884	66.30	67.60	1.30	0.12	0.03	0.01	0.53	0.01	0.01	0.01	0.25
PG03885	85.03	86.20	1.17	0.03	0.03	0.01	0.20	0.01	0.01	0.01	0.25
PG03886	86.20	86.50	0.30	0.21	0.15	0.01	0.69	0.01	0.01	0.01	0.25
PG03887	86.50	86.87	0.37	1.81	0.54	0.05	6.30	0.02	0.03	0.01	1.40
PG03888	86.87	87.37	0.50	0.03	0.03	0.01	0.39	0.01	0.01	0.01	0.25
PG03889	87.37	87.70	0.33	0.07	0.03	0.01	1.01	0.01	0.01	0.01	0.25
PG03890	87.70	88.05	0.35	1.98	0.23	0.08	11.00	0.01	0.04	0.01	0.25
PG03891	88.05	89.35	1.30	0.11	0.10	0.01	0.37	0.01	0.01	0.03	0.60
PG03892	89.35	90.65	1.30	0.03	0.06	0.01	0.18	0.01	0.01	0.01	0.25
PG03893	90.65	92.00	1.35	0.03	0.03	0.01	0.13	0.01	0.01	0.01	0.25
PG03894	92.00	92.30	0.30	0.23	0.23	0.01	1.02	0.01	0.01	0.01	0.70
PG03895	92.30	93.65	1.35	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
		Minor Interval
107.00	107.60	**10f Mafic dykes** The upper and lower contacts of this unit are both irregular (undulating).
Mineralization	65.90	66.30 5.0% Po Pyrrhotite VN Veined Veinlets at 60-90 degrees tca. +-py,cpy?,pn?
Mineralization	86.50	86.87 5.0% Po Pyrrhotite VN Veined Veinlets at 5-85 degrees tca. +cpy+pn
Mineralization	87.70	87.80 3.0% Cpy Chalcopyrite VN Veined
Mineralization	87.70	87.80 6.0% Pn Pentlandite EY Eyes
Mineralization	87.70	87.80 90.0% Po Pyrrhotite M Massive
Mineralization	88.04	88.05 100.0% Po Pyrrhotite M Massive +pn-cpy
Mineralization	92.04	92.05 50.0% Po Pyrrhotite VN Veined +pn-cpy
Structure	68.10	68.11 S1 1st Foliation
Structure	70.10	70.11 S1 1st Foliation
Structure	93.00	93.01 S1 1st Foliation
Structure	101.90	101.91 S1 1st Foliation
Structure	125.90	125.91 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Espedalen - Analysis

Hole Number: ES2005-33

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03882	64.60	65.90	1.30	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG03883	65.90	66.30	0.40	1.68	0.32	0.07	9.17	0.01	0.03	0.03	0.25																
PG03884	66.30	67.60	1.30	0.12	0.03	0.01	0.53	0.01	0.01	0.01	0.25																
PG03885	85.03	86.20	1.17	0.03	0.03	0.01	0.20	0.01	0.01	0.01	0.25																
PG03886	86.20	86.50	0.30	0.21	0.15	0.01	0.69	0.01	0.01	0.01	0.25																
PG03887	86.50	86.87	0.37	1.81	0.54	0.05	6.30	0.01	0.02	0.03	1.40																
PG03888	86.87	87.37	0.50	0.03	0.03	0.01	0.39	0.01	0.01	0.01	0.25																
PG03889	87.37	87.70	0.33	0.07	0.03	0.01	1.01	0.01	0.01	0.01	0.25																
PG03890	87.70	88.05	0.35	1.98	0.23	0.08	11.00	0.01	0.01	0.04	0.25																
PG03891	88.05	89.35	1.30	0.11	0.10	0.01	0.37	0.03	0.01	0.01	0.60																
PG03892	89.35	90.65	1.30	0.03	0.06	0.01	0.18	0.01	0.01	0.01	0.25																
PG03893	90.65	92.00	1.35	0.03	0.03	0.01	0.13	0.01	0.01	0.01	0.25																
PG03894	92.00	92.30	0.30	0.23	0.23	0.01	1.02	0.01	0.01	0.01	0.70																
PG03895	92.30	93.65	1.35	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-33

Depth	Conductivity (Siemens)	COMMENTS
86.60	540.00	Cut core
87.75	999.00	C=4000S - cut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-33

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
3.00	0.20	
4.00	0.50	
5.00	0.64	
6.00	0.69	
7.00	0.49	
8.00	0.44	
9.00	0.38	
10.00	0.47	
11.00	0.47	
12.00	0.40	
13.00	0.46	
14.00	0.41	
15.00	0.20	
16.00	0.19	
17.00	0.24	
18.00	0.18	
19.00	0.16	
20.00	0.30	
21.00	0.16	
22.00	0.13	
23.00	0.17	
24.00	0.26	
25.00	0.18	
26.00	0.18	
27.00	0.25	
28.00	0.15	
29.00	0.17	
30.00	0.17	
31.00	0.13	
32.00	0.11	
33.00	0.28	
34.00	0.21	
35.00	0.21	
36.00	0.22	
37.00	0.13	
38.00	0.15	
39.00	0.16	
40.00	0.20	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-33
41.00	0.15	
42.00	0.18	
43.00	0.19	
44.00	0.25	
45.00	0.17	
46.00	0.16	
47.00	0.15	
48.00	0.18	
49.00	0.18	
50.00	0.16	
51.00	0.14	
52.00	0.25	
53.00	0.60	
54.00	0.49	
55.00	0.52	
56.00	0.60	
57.00	0.63	
58.00	0.58	
59.00	0.55	
60.00	0.60	
61.00	0.18	
62.00	0.25	
63.00	0.24	
64.00	0.17	
65.00	0.20	
66.00	14.00	
67.00	0.19	
68.00	0.20	
69.00	0.19	
70.00	0.18	
71.00	0.17	
72.00	0.17	
73.00	0.64	
74.00	0.06	
75.00	0.08	
76.00	0.06	
77.00	0.03	
78.00	0.05	
79.00	0.10	
80.00	0.13	
81.00	0.69	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-33

82.00	0.42	
83.00	0.59	
84.00	0.63	
85.00	0.20	
86.00	0.97	
87.00	0.86	
88.00	1.59	
89.00	0.70	
90.00	0.38	
91.00	0.14	
92.00	0.60	
93.00	0.17	
94.00	0.14	
95.00	0.16	
96.00	0.19	
97.00	0.17	
98.00	0.22	
99.00	0.16	
100.00	0.08	
101.00	0.16	
102.00	0.15	
103.00	0.15	
104.00	0.04	
105.00	0.04	
106.00	0.04	
107.00	0.33	
108.00	0.07	
109.00	0.17	
110.00	0.08	
111.00	0.20	
112.00	0.13	
113.00	0.06	
114.00	0.08	
115.00	0.09	
116.00	0.17	
117.00	0.10	
118.00	0.09	
119.00	0.19	
120.00	0.12	
121.00	0.10	
122.00	0.06	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-33
123.00	0.06	
124.00	0.11	
125.00	0.06	
126.00	0.07	
127.00	0.06	
128.00	0.09	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-33

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
2.60	6.00	69	100	N	
6.00	9.00	92	100	N	
9.00	12.00	81	100	N	
12.00	15.00	93	100	N	
15.00	18.00	77	100	N	
18.00	21.00	82	100	N	
21.00	24.00	96	100	N	
24.00	27.00	100	100	N	
27.00	30.00	89	100	N	
30.00	33.00	84	100	N	
33.00	36.00	97	100	N	
36.00	39.00	96	100	N	
39.00	42.00	95	100	N	
42.00	45.00	92	100	N	
45.00	48.00	61	100	N	
48.00	51.00	76	100	N	
51.00	54.00	85	100	N	
54.00	57.00	89	100	N	
57.00	60.00	92	100	N	
60.00	63.00	100	100	N	
63.00	66.00	100	100	N	
66.00	69.00	86	100	N	
69.00	72.00	76	100	N	
72.00	75.00	74	100	N	
75.00	78.00	74	100	N	
78.00	81.00	74	100	N	
81.00	84.00	94	100	N	
84.00	87.00	84	100	N	
87.00	90.00	83	100	N	
90.00	93.00	85	100	N	
93.00	96.00	86	100	N	
96.00	99.00	98	100	N	
99.00	102.00	79	100	N	
102.00	105.00	82	100	N	
105.00	108.00	85	100	N	
108.00	111.00	83	100	N	
111.00	114.00	81	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-33

114.00	117.00	89	100	N	
117.00	120.00	52	100	N	
120.00	123.00	71	100	N	
123.00	126.00	37	100	N	
126.00	128.00	66	100	N	

2005 Summer Drilling

Detailed Log

Hole Number: **ES2005-34** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	7/13/2005	Pulse EM Survey:	N			Logged by:	Lars Weiershaeuser
Date Completed:	7/14/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,798,742.01	Local Northing:	3675.03
UTM Easting:	538,149.70	Local Easting:	5299.71
Elevation: 955.62			

Collar Dip:	-62.00
Collar Azimuth:	230.00
Length:	80.30

Comments

Purpose: To test UTEM conductor ESP_26_22, which is interpreted as 2 crosscutting conductors, each with a modelled conductivity of 500 siemens.

Result: Intersected metasediments (mylonites? according to Michael Heim) at the base of the Jotun Nappe, followed downhole by a graphite-bearing shear zone before intersecting metasediments (slates/phyllites) of the Synnfjell Nappe.

Interpretation: Hole collared outside of favourable "Espedalen Complex" but within the base of the Jotun Nappe. After intersecting a graphite-bearing shear zone, Ordovician sediments were intersected, belonging to the Synnefjell Nappe. Rock types and stratigraphic positioning discussed in person with Michael Heim.

Detailed Lithology

From	To		Lithology
0.00	3.90	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
3.90	41.58	**5 Undivided Metasediments** Phyllite This unit consists of a fine grained, light green, non-magnetic, garnet-bearing metasediment. The rock is abundant in chlorite and sericite +/- epidote(?). Locally, mm-scale quartz veins cut the stratigraphy. Trace magnetite is common. This unit is homogeneous on a meter-scale. **Alteration** 12.80 13.06 HM Hematite P Pervasive W Weak **Alteration** 31.44 31.60 HM Hematite P Pervasive W Weak **Structure** 9.00 9.01 S1 1st Foliation **Structure** 16.23 16.24 S1 1st Foliation **Structure** 25.93 25.94 S1 1st Foliation **Structure** 31.52 31.53 S1 1st Foliation **Structure** 37.66 37.67 S1 1st Foliation											
41.58	80.30	**5 Undivided Metasediments** Slate This unit consists of a very fine-grained dark gray, non-magnetic slate. Medium to coarse-grained quartz ?sweats? are very common (ca. 30%) and emphasize the Durchbewegung of the rock. Locally, graphitic ?fault gouges can be found, although weakly conductive with ohm meter (non-conductive with conductivity meter). **Minor Interval** 41.58 42.05 **5 Undivided Metasediments** Graphitic, very well-foliated ?fault zone. **Minor Interval** 59.00 59.40 **5 Undivided Metasediments** Graphitic, friable ?fault zone **Structure** 46.20 46.21 S1 1st Foliation **Structure** 58.63 58.64 S1 1st Foliation **Structure** 67.84 67.85 S1 1st Foliation **Structure** 74.43 74.44 S1 1st Foliation **Structure** 79.50 79.51 S1 1st Foliation											

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-34

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
4.00	0.11	
5.00	0.27	
6.00	0.27	
7.00	0.22	
8.00	0.29	
9.00	0.28	
10.00	0.35	
11.00	0.14	
12.00	0.26	
13.00	0.29	
14.00	0.24	
15.00	0.37	
16.00	0.93	
17.00	0.48	
18.00	0.32	
19.00	0.65	
20.00	0.24	
21.00	0.30	
22.00	0.22	
23.00	0.39	
24.00	0.64	
25.00	0.33	
26.00	1.40	
27.00	1.11	
28.00	3.32	
29.00	0.24	
30.00	0.25	
31.00	0.40	
32.00	0.19	
33.00	0.34	
34.00	0.33	
35.00	0.22	
36.00	0.21	
37.00	0.23	
38.00	0.22	
39.00	0.25	
40.00	0.23	
41.00	0.17	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-34

42.00	0.15	
43.00	0.17	
44.00	0.15	
45.00	0.23	
46.00	0.22	
47.00	0.20	
48.00	0.20	
49.00	0.19	
50.00	0.21	
51.00	0.20	
52.00	0.23	
53.00	0.21	
54.00	0.22	
55.00	0.23	
56.00	0.16	
57.00	0.24	
58.00	0.16	
59.00	0.13	
60.00	0.21	
61.00	0.21	
62.00	0.23	
63.00	0.24	
64.00	0.21	
65.00	0.20	
66.00	0.12	
67.00	0.12	
68.00	0.19	
69.00	0.17	
70.00	0.15	
71.00	0.22	
72.00	0.32	
73.00	0.16	
74.00	0.16	
75.00	0.20	
76.00	0.22	
77.00	0.19	
78.00	0.20	
79.00	0.17	
80.00	0.17	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-34

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
3.90	7.00	39	100	N	
7.00	10.00	93	100	N	
10.00	13.00	71	100	N	
13.00	16.00	83	100	N	
16.00	19.00	93	100	N	
19.00	22.00	77	100	N	
22.00	25.00	49	100	N	
25.00	28.00	79	100	N	
28.00	31.00	48	100	N	
31.00	34.00	73	100	N	
34.00	37.00	75	100	N	
37.00	40.00	86	100	N	
40.00	43.00	67	100	N	
43.00	46.00	65	100	N	
46.00	49.00	67	100	N	
49.00	52.00	69	100	N	
52.00	55.00	75	100	N	
55.00	58.00	36	100	N	
58.00	61.00	58	100	N	
61.00	64.00	96	100	N	
64.00	67.00	79	100	N	
67.00	70.00	73	100	N	
70.00	73.00	76	100	N	
73.00	76.00	79	100	N	
76.00	79.00	73	100	N	
79.00	80.30	72	100	N	

Detailed Log

Hole Number: **ES2005-35** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	7/15/2005	Pulse EM Survey:	N			Logged by:	Lars Weiershaeuser
Date Completed:	7/20/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,803,899.48	Local Northing:	5740.02
UTM Easting:	536,517.72	Local Easting:	0299.83
Elevation: 825.07			

Collar Dip:	-55.00
Collar Azimuth:	50.00
Length:	80.40

Comments

Purpose: Test UTEM conductor ESP_13_13, within the centre of interpreted plate (Conductivity = 125 Siemens).

Result: Intersected oikocrystic pyroxenite from 12.5-32.12m, which contained up to 50% net textured sulphides (po-pn-cpy) on a dm scale. Remobilized sulphides (up to 20%) were also intersected within footwall gabbronorite (non-nickel bearing).

Assays: 1.73% Ni, 0.29% Cu, 0.09% Co / 1.53m (14.65-16.18m)

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Heim's rock suite 3 (gabbronoritic bodies) which contains local concentrations of sulphides (primarily pyrrhotite) proximal to contact with ultramafic body (oikocrystic pyroxenite). Ni-bearing sulphides occur within the ultramafic.

Detailed Lithology

From	To		Lithology
0.00	12.50	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
12.50	32.12	**6c Oikocrystic Pyroxenite** This unit consists of a dark black, fine grained, moderately to strongly magnetic, very weakly foliated rock. It contains oikocrysts (likely pyroxenes, now alteration minerals) and is homogeneous. Between 16.18m and 17.08m a light colored, feldspar-rich raft/xenolith is found. The upper contact is sharp at 70 degrees tca, the lower contact is sharp but irregular. The unit contains fairly abundant sulfide mineralization; see "Mineralization" section for details. The rock/drill core is fractured and broken-up

Mineralization	12.50	14.65	0.5%	Po	Pyrrhotite
				TR	Trace
				at 14.26m, 5mm remobilized veinlet with trace cpy	
Mineralization	14.65	15.30	4.0%	Po	Pyrrhotite
				NT	Net-Textured
				locally remobilized	
Mineralization	14.65	15.30	0.5%	Pn	Pentlandite
				EY	Eyes
				possibly py - very small (max 1mm)	
Mineralization	14.65	15.30	1.0%	Cpy	Chalcopyrite
				NT	Net-Textured
				locally remobilized	
Mineralization	15.56	16.18	2.0%	Cpy	Chalcopyrite
				NT	Net-Textured
Mineralization	15.56	16.18	48.0%	Po	Pyrrhotite
				NT	Net-Textured
Mineralization	15.56	16.18	0.5%	Pn	Pentlandite
				EY	Eyes
				possibly py - very small (max 1mm)	
Mineralization	16.18	31.00	0.5%	Po	Pyrrhotite
				D	Disseminated
				locally remobilized	
Mineralization	31.00	32.12	0.5%	Cpy	Chalcopyrite
				TR	Trace
Mineralization	31.00	32.12	5.0%	Po	Pyrrhotite
				NT	Net-Textured
				locally remobilized	
Structure	21.61	21.62	S1	1st Foliation	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03917	12.50	14.65	2.15	0.13	0.10	0.01	1.09	0.01	0.01	0.03	0.60
PG03918	14.65	15.56	0.91	1.25	0.27	0.07	9.38	0.03	0.17	0.02	0.60
PG03919	15.56	16.18	0.62	2.44	0.33	0.12	22.00	0.48	0.19	0.04	0.25
PG03920	16.18	17.08	0.90	0.08	0.03	0.01	0.20	0.03	0.03	0.09	0.25
PG03921	17.08	18.48	1.40	0.20	0.05	0.01	2.16	0.03	0.02	0.01	0.25
PG03922	18.48	20.00	1.52	0.16	0.03	0.01	1.55	0.01	0.01	0.01	0.25
PG03923	20.00	21.42	1.42	0.15	0.03	0.03	0.96	0.01	0.01	0.01	0.25
PG03924	29.54	31.00	1.46	0.07	0.03	0.01	0.69	0.01	0.01	0.01	0.25
PG03926	31.00	32.12	1.12	0.09	0.03	0.01	5.52	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
32.12	80.40	**7 Undivided Mafic Intrusive** This unit consists of a fine-grained, weakly to non-magnetic, locally moderately well foliated rock. White feldspar and melanocratic minerals give it a mottled appearance. The rock seems to have undergone at least localized anatexis. Locally, trace to moderate sulfide mineralization occurs in melanocratic sections of the rock. Overall, the texture of the rock is fairly inhomogeneous. This unit is intruded by an anorthosite (unit 4), a mafic dyke (unit 10f) and a late dolerite (diabase) dyke (unit 8a). See minor units for detailed descriptions. The total thickness of this unit is unknown as the hole was shut down.
		Minor Interval
	57.51 60.50	**8a Dolerite** This unit consists of a fine grained, very homogeneous, non-magnetic, plagioclase and amphibole/pyroxene-bearing rock. The texture is typical of diabase/dolerite (ophitic). The upper contact of this unit is sharp but irregular, while the lower contact is sharp and shows indicatations of being chilled. The lack of a foliation and a possible chilled margin supports the interpretation that this dyke intruded late.
		Minor Interval
	71.20 74.26	**4 Anorthosite / Anorthositic Gabbro** This unit consists of medium-grained, "dirty" anorthosite. The rock is non-magnetic, fairly inhomogeneous, non-foliated, and contains abundant dark ?alteration? minerals. The upper contact is sharp but irregular; abundant sulfides occur in the immediate hanging wall. The lower contact is sharp but irregular; it shows crosscutting relationships with unit 7 (mafic intrusive) and possibly cuts the mafic dyke in the immediate footwall. This unit contains a "raft" of altered mafic intrusive rock between 71.88 and 72.18m
		Minor Interval
	74.26 76.43	**10f Mafic dykes** Fine-grained, homogeneous, non-magnetic, dark gray to greenish-gray, non-foliated mafic dyke.
		Mineralization 32.12 38.54 0.5% Cpy Chalcopyrite PAT Patchy remob'd in melanocratic sections
		Mineralization 32.12 38.54 2.0% Po Pyrrhotite PAT Patchy remob'd in melanocratic sections
		Mineralization 38.54 43.70 0.5% Po Pyrrhotite TR Trace locally remob'd into small stringers

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03927	32.12	33.95	1.83	0.03	0.03	0.01	2.26	0.01	0.01	0.02	0.25
PG03928	33.95	34.80	0.85	0.16	0.12	0.04	9.63	0.01	0.02	0.01	0.25
PG03929	34.80	35.80	1.00	0.12	0.12	0.03	7.74	0.01	0.02	0.03	0.25
PG03930	35.80	37.23	1.43	0.06	0.07	0.01	4.21	0.07	0.01	0.01	0.25
PG03931	37.23	38.56	1.33	0.03	0.03	0.01	2.09	0.01	0.01	0.01	0.25
PG03932	43.70	44.70	1.00	0.03	0.03	0.01	0.98	0.01	0.01	0.01	0.25
PG03933	44.70	46.35	1.65	0.03	0.03	0.01	2.51	0.01	0.01	0.01	0.25
PG03934	46.35	48.00	1.65	0.03	0.03	0.01	1.17	0.01	0.01	0.01	0.25
PG03935	59.00	60.50	1.50	0.03	0.03	0.01	0.99	0.01	0.01	0.02	0.25
PG03936	60.50	61.80	1.30	0.10	0.13	0.03	8.56	0.02	0.01	0.01	0.25
PG03937	61.80	63.15	1.35	0.03	0.06	0.01	2.93	0.01	0.01	0.01	0.25
PG03938	63.15	64.50	1.35	0.03	0.03	0.01	2.63	0.02	0.01	0.01	0.25
PG03939	64.50	64.80	0.30	0.11	0.11	0.03	9.57	0.01	0.02	0.01	0.25
PG03940	64.80	66.00	1.20	0.03	0.03	0.01	1.06	0.01	0.01	0.01	0.25
PG03941	69.55	70.90	1.35	0.03	0.03	0.01	0.52	0.01	0.01	0.02	0.25
PG03942	70.90	71.20	0.30	0.33	0.14	0.07	14.20	0.04	0.03	0.01	0.25
PG03943	71.20	72.55	1.35	0.03	0.03	0.01	0.24	0.01	0.01	0.01	0.25

Detailed Lithology							Assay Data											
From	To	Lithology					Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Mineralization	44.71	46.35	3.0%	Po Pyrrhotite STR Stringers po remob'd, locally plebby or patchy as w												
		Mineralization	48.35	52.40	0.5%	Po Pyrrhotite TR Trace very localized at 48.35, 51.1, and 52.4; plebby												
		Mineralization	60.50	64.50	5.0%	Po Pyrrhotite STR Stringers remob'd into stringers; locally patchy												
		Mineralization	60.50	64.80	20.0%	Po Pyrrhotite PAT Patchy remob'd												
		Mineralization	60.50	64.50	0.5%	Cpy Chalcopyrite TR Trace flecks associated with po												
		Mineralization	60.50	64.80	1.0%	Cpy Chalcopyrite PAT Patchy associated with po												
		Mineralization	70.90	71.20	20.0%	Po Pyrrhotite PAT Patchy remob'd												
		Mineralization	70.90	71.20	1.0%	Cpy Chalcopyrite PAT Patchy associated with po												
		Structure	33.58	33.59	S1	1st Foliation												
		Structure	40.69	40.70	S1	1st Foliation												
		Structure	52.20	52.21	S1	1st Foliation												
		Structure	63.29	63.30	S1	1st Foliation												
		Structure	76.55	76.56	S1	1st Foliation												

Espedalen - Analysis

Hole Number: ES2005-35

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03917	12.50	14.65	2.15	0.13	0.10	0.01	1.09	0.03	0.01	0.01	0.60																
PG03918	14.65	15.56	0.91	1.25	0.27	0.07	9.38	0.02	0.03	0.17	0.60																
PG03919	15.56	16.18	0.62	2.44	0.33	0.12	22.00	0.04	0.48	0.19	0.25																
PG03920	16.18	17.08	0.90	0.08	0.03	0.01	0.20	0.09	0.03	0.03	0.25																
PG03921	17.08	18.48	1.40	0.20	0.05	0.01	2.16	0.01	0.03	0.02	0.25																
PG03922	18.48	20.00	1.52	0.16	0.03	0.01	1.55	0.01	0.01	0.01	0.25																
PG03923	20.00	21.42	1.42	0.15	0.03	0.03	0.96	0.01	0.01	0.01	0.25																
PG03924	29.54	31.00	1.46	0.07	0.03	0.01	0.69	0.01	0.01	0.01	0.25																
PG03926	31.00	32.12	1.12	0.09	0.03	0.01	5.52	0.01	0.01	0.01	0.25																
PG03927	32.12	33.95	1.83	0.03	0.03	0.01	2.26	0.02	0.01	0.01	0.25																
PG03928	33.95	34.80	0.85	0.16	0.12	0.04	9.63	0.01	0.01	0.02	0.25																
PG03929	34.80	35.80	1.00	0.12	0.12	0.03	7.74	0.03	0.01	0.02	0.25																
PG03930	35.80	37.23	1.43	0.06	0.07	0.01	4.21	0.01	0.07	0.01	0.25																
PG03931	37.23	38.56	1.33	0.03	0.03	0.01	2.09	0.01	0.01	0.01	0.25																
PG03932	43.70	44.70	1.00	0.03	0.03	0.01	0.98	0.01	0.01	0.01	0.25																
PG03933	44.70	46.35	1.65	0.03	0.03	0.01	2.51	0.01	0.01	0.01	0.25																
PG03934	46.35	48.00	1.65	0.03	0.03	0.01	1.17	0.01	0.01	0.01	0.25																
PG03935	59.00	60.50	1.50	0.03	0.03	0.01	0.99	0.02	0.01	0.01	0.25																
PG03936	60.50	61.80	1.30	0.10	0.13	0.03	8.56	0.01	0.02	0.01	0.25																
PG03937	61.80	63.15	1.35	0.03	0.06	0.01	2.93	0.01	0.01	0.01	0.25																
PG03938	63.15	64.50	1.35	0.03	0.03	0.01	2.63	0.01	0.02	0.01	0.25																
PG03939	64.50	64.80	0.30	0.11	0.11	0.03	9.57	0.01	0.01	0.02	0.25																
PG03940	64.80	66.00	1.20	0.03	0.03	0.01	1.06	0.01	0.01	0.01	0.25																
PG03941	69.55	70.90	1.35	0.03	0.03	0.01	0.52	0.02	0.01	0.01	0.25																
PG03942	70.90	71.20	0.30	0.33	0.14	0.07	14.20	0.01	0.04	0.03	0.25																
PG03943	71.20	72.55	1.35	0.03	0.03	0.01	0.24	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-35

Depth	Conductivity (Siemens)	COMMENTS
15.00	999.00	C=1550S - on uncut core
16.00	999.00	C=1550S - on uncut core
32.15	999.00	C=1080S - on uncut core
35.70	450.00	on uncut core
60.80	140.00	on uncut core
61.32	185.00	on uncut core
64.62	650.00	on uncut core
71.15	999.00	C=1050S - on uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-35

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
13.00	9.25	
14.00	3.29	
15.00	16.20	
16.00	12.00	
17.00	1.49	
18.00	3.60	
19.00	5.20	
20.00	84.80	
21.00	58.00	
22.00	38.30	
23.00	39.60	
24.00	53.70	
25.00	54.80	
26.00	20.70	
27.00	66.60	
28.00	72.80	
29.00	60.30	
30.00	43.20	
31.00	5.60	
32.00	3.05	
33.00	1.31	
34.00	13.50	
35.00	7.16	
36.00	1.07	
37.00	3.67	
38.00	1.02	
39.00	0.42	
40.00	0.92	
41.00	0.48	
42.00	1.47	
43.00	0.53	
44.00	0.67	
45.00	0.73	
46.00	2.97	
47.00	0.40	
48.00	0.33	
49.00	0.34	
50.00	0.37	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-35
51.00	1.04	
52.00	0.39	
53.00	0.53	
54.00	0.42	
55.00	0.42	
56.00	0.34	
57.00	0.38	
58.00	0.45	
59.00	0.78	
60.00	1.48	
61.00	8.50	
62.00	4.55	
63.00	1.97	
64.00	0.62	
65.00	0.85	
66.00	0.70	
67.00	0.59	
68.00	0.44	
69.00	0.48	
70.00	1.03	
71.00	3.36	
72.00	0.34	
73.00	0.21	
74.00	0.14	
75.00	0.62	
76.00	0.69	
77.00	0.31	
78.00	0.48	
79.00	0.38	
80.00	0.34	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-35

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
12.50	15.00	24	100	N	
15.00	18.00	56	100	N	
18.00	21.00	35	100	N	
21.00	24.00	35	100	N	
24.00	27.00	28	100	N	
27.00	30.00	34	100	N	
30.00	33.00	31	100	N	
33.00	36.00	62	100	N	
36.00	39.00	54	100	N	
39.00	42.00	42	100	N	
42.00	45.00	57	100	N	
45.00	48.00	68	100	N	
48.00	51.00	59	100	N	
51.00	54.00	42	100	N	
54.00	57.00	38	100	N	
57.00	60.00	43	100	N	
60.00	63.00	75	100	N	
63.00	66.00	54	100	N	
66.00	69.00	68	100	N	
69.00	72.00	58	100	N	
72.00	75.00	78	100	N	
75.00	78.00	51	100	N	
78.00	80.40	58	100	N	

Detailed Log

Hole Number: **ES2005-36** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	7/21/2005	Pulse EM Survey:	N				
Date Completed:	7/24/2005	Casing:	Left in Hole, capped			Logged by:	Lars Weiershaeuser
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,807,737.88	Local Northing:	5336.62
UTM Easting:	532,770.31	Local Easting:	4950.66
Elevation: 1133.28			

Collar Dip:	-71.00
Collar Azimuth:	231.00
Length:	179.00

Comments

Purpose: Test UTEM conductor ESP_09_07 on L4950E, grid west of holes ES2004-03 and ES2004-16. These holes were unsuccessful in intersected the interpreted plate (Conductivity = 600-900 Siemens).

Result: Hole was drilled at an angle which was targeting the intersection of 2 interpreted conductive plates, but unfortunately did not take in consideration the borehole anomaly which was outlined in hole ES2004-16.

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Anorthositic rocks (Heim's rock suite 2a) locally crosscut by unmineralized mafic dykes.

Detailed Lithology

From	To		Lithology
0.00	0.30	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
0.30	151.15	**4 Anorthosite / Anorthositic Gabbro** This unit consists of a non-magnetic, locally well-foliated, black and white, medium to coarse-grained anorthositic gabbro containing white plagioclase and black pyroxenes in addition to minor alteration minerals. Especially up to a depth of ca. 100 m the unit is very homogeneous. Where the rock lacks a foliation it has a mottled appearance. The unit is cut by numerous mafic (10f) and dolerite (8a) dykes/sills. Locally, where the rock is in contact with the dykes it is very coarse-grained and contains less mafic minerals. Small diabase (dolerite) dykes are located at 127.85-128.32 m, 129.71-130.25 m, and 146.89-147.12m. The contacts are always sharp and at various angles tca. Locally, small amounts of doleritic rocks seem to be injected into the anorthositic gabbro. These "injections?" do not have a reaction rim. None of this unit is mineralized
		Minor Interval
12.51	13.36	**10f Mafic dykes** Fine-grained, dark gray to black, non-magnetic, homogeneous, mafic rock. The upper and lower contacts are sharp at 60 degrees tca and irregular, respectively. This subunit contains trace po.
		Minor Interval
15.45	16.07	**10f Mafic dykes** Fine-grained, dark gray to black, non-magnetic, homogeneous, mafic rock. The rock seems to have digested the wall rock along the contacts over 5 to 10 cm.
		Minor Interval
70.96	71.52	**8a Dolerite** Fine-to medium-grained black and white, non-magnetic, very homogeneous, non-foliated rock containing white plagioclase and black pyroxenes; the rock has an ophitic texture. The upper contact appears faulted, the lower contact is sharp at 15 degrees tca. There are no reaction rims along the contacts. This subunit is non-mineralized.
		Minor Interval
93.09	97.42	**10f Mafic dykes** Fine-grained, dark gray to black, non-magnetic, homogeneous, mafic rock. The upper and lower contacts are sharp at 80 degrees tca, respectively. The rock is finer-grained along the contacts. This unit is not mineralized.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03944	74.75	76.15	1.40	0.03	0.03	0.01	0.32	0.01	0.01	0.01	0.25
PG03945	76.15	76.39	0.24	0.06	0.06	0.02	3.95	0.01	0.01	0.01	0.25
PG03946	76.39	77.79	1.40	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Minor Interval

102.19 105.25 **10f Mafic dykes**
Fine-grained, dark gray to black, non-magnetic, homogeneous, mafic rock.
The upper and lower contacts are sharp at 80 and 10 degrees tca, respectively.
The unit is neither foliated nor mineralized.

Minor Interval

108.50 112.47 **8a Dolerite**
Fine-to medium-grained black and white, non-magnetic, very homogeneous, non-foliated rock containing white plagioclase and black pyroxenes as well as biotite; the rock has an ophitic texture.
The upper and lower contacts are sharp at 55 and 20 degrees, respectively.
This subunit is non-mineralized.

Minor Interval

116.05 118.62 **10f Mafic dykes**
Fine-grained, dark gray to black, non-magnetic, homogeneous, mafic rock.
The upper and lower contacts are sharp at 50 degrees tca.
This unit is cut by numerous quartz-carbonate veinlets with very minor epidote. Locally, crenulation and folding are evident.
This unit is not mineralized.

Minor Interval

140.43 143.15 **8a Dolerite**
Fine-to medium-grained black and white, weakly to moderately magnetic, very homogeneous, non-foliated rock containing white plagioclase and black pyroxenes; the rock has an ophitic texture.
The upper and lower contacts are sharp at 70 and 30 degrees, respectively.
This subunit is non-mineralized.

Mineralization	12.51	13.36	0.5%	Po	Pyrrhotite
				TR	Trace
Mineralization	15.45	16.07	0.5%	Po	Pyrrhotite
				TR	Trace
Mineralization	41.01	41.02	80.0%	Mt	Magnetite
				M	Massive
Mineralization	75.84	75.93	10.0%	Po	Pyrrhotite
				PAT	Patchy

Detailed Lithology							Assay Data											
From	To	Lithology					Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Mineralization	76.20	76.30	30.0%	Po Pyrrhotite SM Semi-Massive												
		Structure	10.78	10.79	S1	1st Foliation												
		Structure	15.32	15.33	S1	1st Foliation												
		Structure	21.45	21.46	S1	1st Foliation												
		Structure	38.86	38.87	S1	1st Foliation												
		Structure	46.65	46.66	S1	1st Foliation												
		Structure	52.46	52.47	S1	1st Foliation												
		Structure	58.23	58.24	S1	1st Foliation												
		Structure	62.78	68.79	S1	1st Foliation												
		Structure	68.92	68.93	S1	1st Foliation												
		Structure	81.58	81.59	S1	1st Foliation												
		Structure	87.58	87.59	S1	1st Foliation												
		Structure	91.80	91.81	S1	1st Foliation												
		Structure	97.80	97.81	S1	1st Foliation												
		Structure	106.42	106.43	S1	1st Foliation												
		Structure	144.32	144.33	S1	1st Foliation												

151.15 179.00 **10f Mafic dykes**

Homogeneous, fine to medium-grained, dark gray and white, lineated, magnetic mafic intrusive. The rock contains abundant white plagioclase and mafic ?pyroxene minerals. Trace sulfides can be found as well as magnetite. The contact to the hanging wall unit is sharp at 60 degrees tca. The rock is finer-grained along contacts with the overlying unit as well as along the minor unit.
The total thickness of this unit is unknown as the hole was shut down.

Minor Interval

156.82 159.46 **4 Anorthosite / Anorthositic Gabbro**

Coarse-grained, white to gray, non-magnetic anorthositic ?raft? within the mafic intrusive. The rock seems to be recrystallized. The upper and lower contacts are sharp at 70 and 30 degrees tca, respectively.
This subunit is not mineralized.

Structure	167.26	167.27	S1	1st Foliation

Espedalen - Analysis

Hole Number: ES2005-36

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03944	74.75	76.15	1.40	0.03	0.03	0.01	0.32	0.01	0.01	0.01	0.25																
PG03945	76.15	76.39	0.24	0.06	0.06	0.02	3.95	0.01	0.01	0.01	0.25																
PG03946	76.39	77.79	1.40	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-36

Depth	Conductivity (Siemens)	COMMENTS
76.26	590.00	on uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-36

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
1.00	0.12	
2.00	0.23	
3.00	0.27	
4.00	0.36	
5.00	0.31	
6.00	0.19	
7.00	0.28	
8.00	0.34	
9.00	0.34	
10.00	0.32	
11.00	0.28	
12.00	0.25	
13.00	1.05	
14.00	0.31	
15.00	0.08	
16.00	0.53	
17.00	0.25	
18.00	0.33	
19.00	0.32	
20.00	0.31	
21.00	0.23	
22.00	0.24	
23.00	0.29	
24.00	0.30	
25.00	0.26	
26.00	0.24	
27.00	0.27	
28.00	0.45	
29.00	0.24	
30.00	0.24	
31.00	0.31	
32.00	0.28	
33.00	0.27	
34.00	0.26	
35.00	0.26	
36.00	0.13	
37.00	0.28	
38.00	0.09	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-36
39.00	0.34	
40.00	0.32	
41.00	6.69	
42.00	0.29	
43.00	0.27	
44.00	0.25	
45.00	0.28	
46.00	0.25	
47.00	0.56	
48.00	0.27	
49.00	0.46	
50.00	0.28	
51.00	0.30	
52.00	0.30	
53.00	0.20	
54.00	0.34	
55.00	0.32	
56.00	0.24	
57.00	0.27	
58.00	0.30	
59.00	0.27	
60.00	0.35	
61.00	0.30	
62.00	0.17	
63.00	0.27	
64.00	0.18	
65.00	0.26	
66.00	0.37	
67.00	0.33	
68.00	0.25	
69.00	0.39	
70.00	0.34	
71.00	0.85	
72.00	0.57	
73.00	0.32	
74.00	0.26	
75.00	0.45	
76.00	0.28	
77.00	0.27	
78.00	0.26	
79.00	0.18	

Espedalen - Magnetic Susceptibility	Hole Number: ES2005-36

80.00	0.24	
81.00	0.17	
82.00	0.21	
83.00	0.21	
84.00	0.25	
85.00	0.25	
86.00	0.24	
87.00	0.28	
88.00	0.22	
89.00	0.23	
90.00	0.25	
91.00	1.52	
92.00	0.75	
93.00	0.26	
94.00	3.63	
95.00	3.45	
96.00	1.31	
97.00	0.26	
98.00	0.28	
99.00	0.24	
100.00	0.43	
101.00	0.24	
102.00	0.35	
103.00	0.56	
104.00	0.71	
105.00	0.59	
106.00	0.16	
107.00	0.17	
108.00	0.51	
109.00	0.76	
110.00	1.04	
111.00	1.09	
112.00	1.10	
113.00	0.22	
114.00	0.25	
115.00	0.27	
116.00	0.21	
117.00	0.51	
118.00	0.88	
119.00	0.28	
120.00	2.38	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-36
121.00	0.47	
122.00	0.20	
123.00	0.22	
124.00	0.23	
125.00	0.27	
126.00	0.27	
127.00	0.29	
128.00	0.42	
129.00	0.21	
130.00	0.34	
131.00	0.22	
132.00	0.23	
133.00	0.54	
134.00	0.21	
135.00	0.41	
136.00	0.20	
137.00	0.20	
138.00	0.15	
139.00	0.25	
140.00	0.24	
141.00	0.45	
142.00	0.49	
143.00	0.30	
144.00	0.25	
145.00	0.21	
146.00	0.19	
147.00	0.42	
148.00	0.09	
149.00	0.50	
150.00	0.29	
151.00	0.20	
152.00	2.23	
153.00	2.92	
154.00	3.85	
155.00	2.19	
156.00	9.62	
157.00	0.67	
158.00	0.30	
159.00	1.35	
160.00	1.86	
161.00	1.84	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-36

162.00	4.25	
163.00	1.41	
164.00	4.28	
165.00	1.05	
166.00	0.97	
167.00	8.62	
168.00	14.90	
169.00	8.98	
170.00	10.50	
171.00	15.30	
172.00	9.60	
173.00	16.00	
174.00	7.30	
175.00	7.03	
176.00	13.90	
177.00	23.40	
178.00	37.90	
179.00	17.10	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-36

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
0.30	3.00	23	100	N	
3.00	6.00	80	100	N	
6.00	9.00	87	100	N	
9.00	12.00	95	100	N	
12.00	15.00	74	100	N	
15.00	18.00	81	100	N	
18.00	21.00	92	100	N	
21.00	24.00	100	100	N	
24.00	27.00	73	100	N	
27.00	30.00	100	100	N	
30.00	33.00	82	100	N	
33.00	36.00	90	100	N	
36.00	39.00	79	100	N	
39.00	42.00	92	100	N	
42.00	45.00	91	100	N	
45.00	48.00	82	100	N	
48.00	51.00	95	100	N	
51.00	54.00	87	100	N	
54.00	57.00	92	100	N	
57.00	60.00	69	100	N	
60.00	63.00	63	100	N	
63.00	66.00	82	100	N	
66.00	69.00	82	100	N	
69.00	72.00	92	100	N	
72.00	75.00	98	100	N	
75.00	78.00	88	100	N	
78.00	81.00	42	100	N	
81.00	84.00	88	100	N	
84.00	87.00	65	100	N	
87.00	90.00	78	100	N	
90.00	93.00	76	100	N	
93.00	96.00	66	100	N	
96.00	99.00	47	100	N	
99.00	102.00	48	100	N	
102.00	105.00	85	100	N	
105.00	108.00	78	100	N	
108.00	111.00	76	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-36

111.00	114.00	91	100	N	
114.00	117.00	91	100	N	
117.00	120.00	74	100	N	
120.00	123.00	87	100	N	
123.00	126.00	92	100	N	
126.00	129.00	91	100	N	
129.00	132.00	87	100	N	
132.00	135.00	84	100	N	
135.00	138.00	92	100	N	
138.00	141.00	98	100	N	
141.00	144.00	81	100	N	
144.00	147.00	68	100	N	
147.00	150.00	65	100	N	
150.00	153.00	54	100	N	
153.00	156.00	67	100	N	
156.00	159.00	83	100	N	
159.00	162.00	94	100	N	
162.00	165.00	61	100	N	
165.00	168.00	81	100	N	
168.00	171.00	78	100	N	
171.00	174.00	64	100	N	
174.00	177.00	75	100	N	
177.00	179.00	86	100	N	

Detailed Log

Hole Number: **ES2005-37** Units: METRIC

Project Name: Espedalen	Collar Survey: Y	Plugged N	UTM WGS 84 Coord	Local Coord	Core Storage: Strand Fjellstue
Project Number: 300	Mulitshot Survey: N	Hole Size: TT46	UTM Northing: 6,807,737.63	Local Northing: 5336.12	Contractor: Arctic Drilling A/S
Date Started: 7/24/2005	Pulse EM Survey: N		UTM Easting: 532,769.88	Local Easting: 4950.58	Collar Dip: -55.00
Date Completed: 7/31/2005	Casing: Left in Hole, capped		Elevation: 1133.72		Collar Azimuth: 231.00
	Location: Surface				Length: 171.50
					Logged by: L.Weiershaeuser, T.Blair

Comments

Purpose: Test UTEM conductor ESP_09_07 on L4950E, grid west of holes ES2004-03 and ES2004-16. These holes were unsuccessful in intersected the interpreted plate (Conductivity = 600-900 Siemens). The drillhole also targeted the BHEM anomaly (offhole) intersected in ES2004-16.

Result: Intersected numerous cm to dm scale veins and stringers of massive po ± pn, py, cpy between 130.50m and 139.20m. Ultramafic clasts/groundmass is locally associated with the mineralization.

Assays: 0.96% Ni, 0.39% Cu, 0.08% Co / 6.40m (130.50-136.90m)
including 1.64% Ni, 0.63% Cu, 0.12% Co / 1.35m (131.00-132.35m)
and 2.48% Ni, 0.98% Cu, 0.16% Co / 0.90m (136.00-136.90m)

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Anorthositic terrain (Heim's rock suite 2a) intruded by narrow, locally mineralized, ultramafic bodies as well as mafic dykes.

Detailed Lithology

From	To		Lithology
0.00	1.00	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
1.00	130.50	**4 Anorthosite / Anorthositic Gabbro** This unit consists of a non-magnetic, locally well-foliated, black and white to gray, medium to coarse-grained anorthositic gabbro containing white plagioclase and black pyroxenes in addition to minor alteration minerals. Especially up to a depth of ca. 100 m the unit is very homogeneous. Where the rock lacks a foliation; it has a mottled appearance. Small fine to medium-grained mafic dykes are located at 76.60 - 76.94 m and 79.91 - 80.27 m. The contacts are sharp at 40 to 70 degrees tca. Locally, small amounts of doleritic rock seem to be injected into the anorthositic gabbro. These "injections?" do not have reaction rims. 98-109m: Interval of strong deformation as anorthosite displays small scale folding and crenulation. Strong foliation planes and lineations occur thoughout the unit. 102-126m: Unit is more inhomogenous as grain size differences as well as dm scale bands of mafic units are concordant with foliation planes.
		Minor Interval
33.03	34.00	**8a Dolerite** Fine-to medium-grained black and white, non-magnetic, very homogeneous, non-foliated rock containing white plagioclase and black pyroxenes; the rock has an ophitic texture. The upper and lower contacts are sharp but irregular; the upper contact appears chilled. There are no reaction rims along the contacts. This subunit is non-mineralized.
		Minor Interval
103.80	104.35	**6d Pyroxenite** Fine grained, dark green, strongly magnetic, sheared ultramafic (pyroxenite, UM schist?) composed of serpentine, pyroxenes and minor amounts of biotite. The shearing is not consistent throughout the unit as small scale folding and breaking are apparent. Unit contains 3-5% fine grained, wispy pyrrhotite +- chalcopyrite, locally mm scale remobilized veinlets. The upper and lower contacts of this unit are sharp at 75 and 65 degrees to the ca, respectively.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03947	103.00	103.80	0.80	0.03	0.03	0.01	0.12	0.01	0.01	0.02	0.25
PG03948	103.80	104.35	0.55	0.06	0.03	0.01	2.64	0.01	0.01	0.02	0.25
PG03949	104.35	104.70	0.35	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25
PG03951	104.70	104.95	0.25	0.05	0.03	0.01	1.80	0.01	0.01	0.01	0.25
PG03952	104.95	105.70	0.75	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25
PG03953	105.70	105.90	0.20	0.03	0.03	0.01	0.40	0.01	0.01	0.01	0.25
PG03954	105.90	107.00	1.10	0.03	0.03	0.01	0.08	0.01	0.01	0.01	0.25
PG03955	127.00	127.80	0.80	0.03	0.03	0.01	0.06	0.01	0.01	0.01	0.25
PG03956	127.80	129.00	1.20	0.03	0.03	0.01	0.21	0.01	0.01	0.01	0.25
PG03957	129.00	129.95	0.95	0.03	0.03	0.01	0.70	0.01	0.45	0.02	0.25
PG03958	129.95	130.50	0.55	0.03	0.03	0.01	0.06	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Minor Interval												
104.70	104.80	**6e Ultramafic Schist** Fine grained, dark green, magnetic, sheared ultramafic composed of serpentine and pyroxenes. Unit contains 5-7% fine grained pyrrhotite. The upper and lower contacts of this unit are sharp at 70 and 55 degrees to the ca, respectively. Note: The 2 ultramafic units are separated by an anorthositic unit which is highly contorted and folded (raft?).											
		Minor Interval											
105.70	105.90	**6e Ultramafic Schist** Dark green to black, sheared, broken section of core composed primarily of chlorite and serpentine. Ultramafic precursor, as units from 103.80-104.35m and 104.70-104.80m? This unit is not mineralized. The upper contact is sharp at 80 degrees to the ca, whereas the lower contact is sharp but irregular.											
		Minor Interval											
119.20	119.40	**6 Undivided Ultramafic Intrusive** Fine grained, well foliated, moderately magnetic, dark grey unit composed of 50% pyroxenes, 35% serpentine (+- chlorite?) and 15% anorthositic fragments. Ultramafic intrusive within anorthosite or mafic to ultramafic schleiren within anorthosite? This unit contains 1-3% fine grained pyrrhotite, locally mm scale remobilized veinlets. The upper and lower contacts of this unit are sharp at 35 and 65 degrees to the ca, respectively.											
		Minor Interval											
127.80	129.95	**4 Anorthosite / Anorthositic Gabbro** Unit with dm to m scale mafic to ultramafic? bands concordant to foliation planes (~60 degrees tca). These mafic sections are dark green to dark grey, fine grained, moderately foliated, non-magnetic, unmineralized units composed of chlorite and pyroxenes (dark pink-grey). Cm to dm scale anorthositic (plagioclase-rich) bands occur. These mafic units local contain trace fine grained pyrrhotite.											
Mineralization		6.14 6.16 0.5% Po Pyrrhotite TR Trace											

Detailed Lithology

From	To	Lithology					
		Mineralization	9.19	9.21	0.5%	Po TR	Pyrrhotite Trace
		Mineralization	74.40	74.42	0.5%	Po TR	Pyrrhotite Trace
		Mineralization	82.47	82.49	0.5%	Po TR	Pyrrhotite Trace
		Structure	16.47	16.48	S1	1st Foliation	
		Structure	22.37	22.38	S1	1st Foliation	
		Structure	28.34	28.35	S1	1st Foliation	
		Structure	35.38	35.39	S1	1st Foliation	
		Structure	40.82	40.83	S1	1st Foliation	
		Structure	52.63	52.64	S1	1st Foliation	
		Structure	60.50	60.51	S1	1st Foliation	
		Structure	70.41	70.42	S1	1st Foliation	
		Structure	82.84	82.85	S1	1st Foliation	
		Structure	87.31	87.32	S1	1st Foliation	
		Structure	92.91	92.92	S1	1st Foliation	
		Structure	103.50	103.51	S1	1st Foliation	
		Structure	110.30	110.31	S1	1st Foliation	
		Structure	119.45	119.46	S1	1st Foliation	
		Structure	127.20	127.21	S1	1st Foliation	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
130.50	139.20	**MS MASSIVE SULPHIDE (>75%)** Semi-massive to massive sulphides occurring on a cm to dm scale, injected throughout anorthosite and ultramafic horizons. Sulphides occur as fine grained, brown to dark brown pyrrhotite, mm scale cubic and/or sub-cubic pyrites, and wispy to blotchy chalcopyrite. No visible pentlandite eyes (exsolution flames?). Gangue minerals occur as mm to locally cm scale anorthosite clasts, which are semi-angular to rounded, which generally have dark green to grey reaction haloes. Ultramafic to mafic fragments also occur as gangue minerals, which are again semi-angular to well rounded and composed essentially of chlorite (+-pyroxenes). Due to the complete injected nature of the massive sulphides, see mineralization tab for complete intervals. **Minor Interval** 130.50 130.65 **MS MASSIVE SULPHIDE (>75%)** 75po, 10py, tr cpy, 15 gangue. **Minor Interval** 130.65 131.00 **4 Anorthosite / Anorthositic Gabbro** xenolith (1 fine grained po-py) **Minor Interval** 131.00 132.35 **MS MASSIVE SULPHIDE (>75%)** Massive sulphide injected horizon. 60% sulphides (50po, 8py, 2cpy) with 40% gangue (anorthosite, ultramafic schist). **Minor Interval** 132.66 132.70 **MS MASSIVE SULPHIDE (>75%)** 65py, 35po **Minor Interval** 133.00 133.15 **MS MASSIVE SULPHIDE (>75%)** Massive sulphide vein with highly broken, angular to rounded anorthositic fragments. Sulphides are 65po, 30py, 5cpy **Minor Interval** 133.60 133.65 **MS MASSIVE SULPHIDE (>75%)** Semi-massive sulphides with ultramafic horizon **Minor Interval** 133.70 133.80 **MS MASSIVE SULPHIDE (>75%)** Semi-massive sulphides (50po, 45py, 5cpy) with angular ultramafic fragments.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03959	130.50	131.00	0.50	0.90	0.28	0.06	13.20	0.07	0.03	0.01	0.25
PG03960	131.00	132.35	1.35	1.64	0.63	0.12	23.40	0.13	0.05	0.04	0.25
PG03961	132.35	133.80	1.45	0.60	0.25	0.05	9.23	0.16	0.26	0.05	0.25
PG03962	133.80	135.15	1.35	0.03	0.03	0.01	0.28	0.01	0.01	0.02	0.25
PG03963	135.15	136.00	0.85	0.35	0.22	0.11	13.20	0.12	0.01	0.05	0.25
PG03964	136.00	136.90	0.90	2.48	0.98	0.16	33.30	0.32	0.07	0.05	0.60
PG03965	136.90	138.50	1.60	0.03	0.03	0.01	0.66	0.01	0.01	0.01	0.25
PG03966	138.50	139.20	0.70	0.38	0.12	0.07	9.97	0.05	0.01	0.04	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Minor Interval												
135.15	135.35	**MS MASSIVE SULPHIDE (>75%)** Semi-massive sulphides (60py, 10po) with 30% gangue (anorthosite and ultramafic fragments).												
		Minor Interval												
135.35	136.00	**6b Peridotite** Fine grained, dark grey, moderately magnetic peridotite composed of serpentine and mm scale pyroxenes (remanent olivines?). They have that Raglan peridotite look!! Unit contains 2-3% fine grained, disseminated pyrrhotite. The upper and lower contacts of this unit are sharp but irregular along uphole and downhole massive sulphides.												
		Minor Interval												
136.00	136.90	**MS MASSIVE SULPHIDE (>75%)** 80po, 10py, 5cpy, 5 gangue (ultramafic fragments).												
		Minor Interval												
138.51	138.57	**MS MASSIVE SULPHIDE (>75%)** 75py, 10po, 15 gangue (ultramafic).												
		Minor Interval												
138.95	139.20	**6b Peridotite** Ultramafic apophysis (as 135.35-136.00m) with massive sulphide upper and lower contacts, of widths 4cm and 2cm respectively.												

Detailed Lithology

From	To	Lithology
139.20	157.10	**4 Anorthosite / Anorthositic Gabbro** Medium grained, massive to weakly foliated (moderately lineated), white and green, non-magnetic, heterogenous anorthosite composed of 50-75% white plagioclase and 25-50% pyroxenes (chloritzed, sausseritized). This unit contains dm to m scale mafic to ultramafic horizons which are documented in the minor units. The lower contact of this unit is sharp at 70 degrees to the ca. **Minor Interval** 142.15 143.30 **6e Ultramafic Schist** Fine grained, well foliated, highly broken, non-magnetic ultramafic schist composed of chlorite, serpentine and pyroxenes (?). Unit contains trace fine grained pyrrhotite. The upper contact is sharp at 60 degrees to the ca, the lower contact is lost within broken core. **Minor Interval** 144.25 145.05 **6e Ultramafic Schist** Mafic to ultramafic horizon within anorthositic gabbro host rock. The upper contact is sharp at 85 degrees to the ca, whereas the lower contact is lost within broken core. **Minor Interval** 145.95 146.80 **8a Dolerite** Green to grey, weakly magnetic, weakly to moderately foliated, mafic unit composed of chlorite, pyroxenes and partially digested plagioclase (anorthosite host rocks). Unit is inferred to be a dolerite as mm scale chill margins are visible (per Michael Heim). The upper contact is sharp at 65 degrees to the ca and the lower contact is sharp but irregular. **Minor Interval** 147.80 148.20 **6 Undivided Ultramafic Intrusive** Fine grained, dark green to dark grey, massive to weakly foliated ultramafic composed of serpentine and pyroxenes. This unit contains 10% fine grained to locally remobilized sulphides (po-py). The upper and lower contacts of this unit are 75 and 80 degrees to the ca, respectively.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03967	139.20	140.00	0.80	0.03	0.03	0.01	0.19	0.01	0.01	0.02	0.25
PG03968	147.00	147.80	0.80	0.03	0.03	0.01	0.08	0.01	0.01	0.01	0.25
PG03969	147.80	148.20	0.40	0.16	0.15	0.02	2.14	0.03	0.01	0.08	0.25
PG03970	148.20	149.30	1.10	0.03	0.03	0.01	0.21	0.01	0.02	0.01	0.25
PG03971	149.30	150.00	0.70	0.03	0.03	0.01	0.29	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Minor Interval												
	149.30 150.00	**8a Dolerite** Fine grained, dark green, moderately foliated, non-magnetic, unmineralized dolerite composed of chlorite, pyroxenes and plagioclase. Ophitic texture is apparent within more massive, centralized segments of dyke. The upper and lower contacts are sharp at 55 and 70 degrees to the ca, respectively.												
		Minor Interval												
	154.33 154.40	**MS MASSIVE SULPHIDE (>75%)** Sulphide flooded region undulating semi-parallel to ca, composed of 40% po-cpy.												
	Structure	141.70 141.71 S1 1st Foliation												
157.10	171.50	**8a Dolerite** Fine grained, massive to well foliated, dark grey-green, weakly to moderately magnetic, heterogenous (function of alteration) dolerite composed of pyroxenes, chlorite, white to cream-coloured plagioclase (ophitic texture). This unit contains numerous dm to m scale anorthosite intervals, which likely represent xenoliths, some of which are partially digested and recrystallized. These occur from 160.85-161.9m; 162.25-162.85m; 164.55-165.95m; 167.25-168.3m. This unit contains local trace pyrrhotite. The lower contact is unknown as the hole was terminated.	PG03972	162.25	162.85	0.60	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25
			PG03973	162.85	163.85	1.00	0.03	0.03	0.01	0.55	0.01	0.01	0.01	0.25
			PG03974	163.85	164.55	0.70	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25
		Minor Interval												
	162.85 163.85	**6 Undivided Ultramafic Intrusive** Fine grained, dark grey, weakly magnetic, weakly foliated ultramafic? composed of serpentine and chlorite. Unit appears distinct from diabase as it contains mineralization from 163.4-163.7m (5-7% po-py-cpy) as blebs and remobilized patches. The upper and lower contacts are difficult to discern and were based on the presence of digested anorthositic material.												

Espedalen - Analysis

Hole Number: ES2005-37

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03947	103.00	103.80	0.80	0.03	0.03	0.01	0.12	0.02	0.01	0.01	0.25																
PG03948	103.80	104.35	0.55	0.06	0.03	0.01	2.64	0.02	0.01	0.01	0.25																
PG03949	104.35	104.70	0.35	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25																
PG03951	104.70	104.95	0.25	0.05	0.03	0.01	1.80	0.01	0.01	0.01	0.25																
PG03952	104.95	105.70	0.75	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25																
PG03953	105.70	105.90	0.20	0.03	0.03	0.01	0.40	0.01	0.01	0.01	0.25																
PG03954	105.90	107.00	1.10	0.03	0.03	0.01	0.08	0.01	0.01	0.01	0.25																
PG03955	127.00	127.80	0.80	0.03	0.03	0.01	0.06	0.01	0.01	0.01	0.25																
PG03956	127.80	129.00	1.20	0.03	0.03	0.01	0.21	0.01	0.01	0.01	0.25																
PG03957	129.00	129.95	0.95	0.03	0.03	0.01	0.70	0.02	0.01	0.45	0.25																
PG03958	129.95	130.50	0.55	0.03	0.03	0.01	0.06	0.01	0.01	0.01	0.25																
PG03959	130.50	131.00	0.50	0.90	0.28	0.06	13.20	0.01	0.07	0.03	0.25																
PG03960	131.00	132.35	1.35	1.64	0.63	0.12	23.40	0.04	0.13	0.05	0.25																
PG03961	132.35	133.80	1.45	0.60	0.25	0.05	9.23	0.05	0.16	0.26	0.25																
PG03962	133.80	135.15	1.35	0.03	0.03	0.01	0.28	0.02	0.01	0.01	0.25																
PG03963	135.15	136.00	0.85	0.35	0.22	0.11	13.20	0.05	0.12	0.01	0.25																
PG03964	136.00	136.90	0.90	2.48	0.98	0.16	33.30	0.05	0.32	0.07	0.60																
PG03965	136.90	138.50	1.60	0.03	0.03	0.01	0.66	0.01	0.01	0.01	0.25																
PG03966	138.50	139.20	0.70	0.38	0.12	0.07	9.97	0.04	0.05	0.01	0.25																
PG03967	139.20	140.00	0.80	0.03	0.03	0.01	0.19	0.02	0.01	0.01	0.25																
PG03968	147.00	147.80	0.80	0.03	0.03	0.01	0.08	0.01	0.01	0.01	0.25																
PG03969	147.80	148.20	0.40	0.16	0.15	0.02	2.14	0.08	0.03	0.01	0.25																
PG03970	148.20	149.30	1.10	0.03	0.03	0.01	0.21	0.01	0.01	0.02	0.25																
PG03971	149.30	150.00	0.70	0.03	0.03	0.01	0.29	0.01	0.01	0.01	0.25																
PG03972	162.25	162.85	0.60	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG03973	162.85	163.85	1.00	0.03	0.03	0.01	0.55	0.01	0.01	0.01	0.25																
PG03974	163.85	164.55	0.70	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-37

Depth	Conductivity (Siemens)	COMMENTS
104.00	30.00	C=20-40S (uncut)
104.75	20.00	uncut core
130.50	999.00	c=1400S, uncut
131.50	999.00	c=1500s, uncut
132.30	999.00	c=1100s, uncut
136.00	999.00	c=1500s, uncut
136.50	999.00	c=2200s, uncut
136.90	999.00	c=1400s, uncut
138.55	999.00	uncut
148.10	20.00	uncut
154.35	999.00	uncut
163.50	60.00	uncut

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-37

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
1.00	0.14	
2.00	0.23	
3.00	0.26	
4.00	0.20	
5.00	0.28	
6.00	0.24	
7.00	0.23	
8.00	0.24	
9.00	0.23	
10.00	0.32	
11.00	0.34	
12.00	0.20	
13.00	0.32	
14.00	0.28	
15.00	0.33	
16.00	0.21	
17.00	0.28	
18.00	0.32	
19.00	0.24	
20.00	0.32	
21.00	0.25	
22.00	0.41	
23.00	0.29	
24.00	0.16	
25.00	0.20	
26.00	0.20	
27.00	0.20	
28.00	0.36	
29.00	0.31	
30.00	0.49	
31.00	0.27	
32.00	0.36	
33.00	0.47	
34.00	0.56	
35.00	0.58	
36.00	0.58	
37.00	0.26	
38.00	0.32	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-37

39.00	0.28	
40.00	0.47	
41.00	0.36	
42.00	0.34	
43.00	0.83	
44.00	0.31	
45.00	0.31	
46.00	0.31	
47.00	0.28	
48.00	0.28	
49.00	0.25	
50.00	0.26	
51.00	0.26	
52.00	0.26	
53.00	0.24	
54.00	0.25	
55.00	0.21	
56.00	0.24	
57.00	0.32	
58.00	0.24	
59.00	0.16	
60.00	0.57	
61.00	0.34	
62.00	0.30	
63.00	0.28	
64.00	0.43	
65.00	0.26	
66.00	0.28	
67.00	0.31	
68.00	0.29	
69.00	0.48	
70.00	0.21	
71.00	0.08	
72.00	0.19	
73.00	0.87	
74.00	0.10	
75.00	0.50	
76.00	0.27	
77.00	0.36	
78.00	1.78	
79.00	0.67	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-37
80.00	0.75	
81.00	0.50	
82.00	0.25	
83.00	0.21	
84.00	0.21	
85.00	0.25	
86.00	0.26	
87.00	0.18	
88.00	0.23	
89.00	0.16	
90.00	0.36	
91.00	0.25	
92.00	0.27	
93.00	0.22	
94.00	0.25	
95.00	0.23	
96.00	0.26	
97.00	0.25	
98.00	0.29	
99.00	0.23	
100.00	0.29	
101.00	0.22	
102.00	0.24	
103.00	0.29	
104.00	78.80	
105.00	0.25	
106.00	0.37	
107.00	0.34	
108.00	0.37	
109.00	0.45	
110.00	0.25	
111.00	1.06	
112.00	5.32	
113.00	3.54	
114.00	1.02	
115.00	0.75	
116.00	0.16	
117.00	0.12	
118.00	0.12	
119.00	0.08	
120.00	0.23	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-37

121.00	0.41	
122.00	0.12	
123.00	0.56	
124.00	0.25	
125.00	0.24	
126.00	0.27	
127.00	0.21	
128.00	0.70	
129.00	0.82	
130.00	1.24	
131.00	12.30	
132.00	13.50	
133.00	4.96	
134.00	3.70	
135.00	0.20	
136.00	1.88	
137.00	5.40	
138.00	0.21	
139.00	6.26	
140.00	0.18	
141.00	0.50	
142.00	0.22	
143.00	0.32	
144.00	0.18	
145.00	0.59	
146.00	0.76	
147.00	0.31	
148.00	2.41	
149.00	0.54	
150.00	0.41	
151.00	0.16	
152.00	0.24	
153.00	10.70	
154.00	0.21	
155.00	0.78	
156.00	0.19	
157.00	0.07	
158.00	1.21	
159.00	0.69	
160.00	1.19	
161.00	0.46	

Espedalen - Magnetic Susceptibility	Hole Number: ES2005-37

162.00	0.96	
163.00	0.61	
164.00	0.32	
165.00	0.30	
166.00	0.52	
167.00	0.63	
168.00	0.17	
169.00	0.48	
170.00	0.99	
171.00	7.01	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-37

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
1.00	4.00	40	100	N	
4.00	7.00	72	100	N	
7.00	10.00	89	100	N	
10.00	13.00	82	100	N	
13.00	16.00	86	100	N	
16.00	19.00	82	100	N	
19.00	22.00	93	100	N	
22.00	25.00	83	100	N	
25.00	28.00	72	100	N	
28.00	31.00	88	100	N	
31.00	34.00	87	100	N	
34.00	37.00	89	100	N	
37.00	40.00	92	100	N	
40.00	43.00	90	100	N	
43.00	46.00	83	100	N	
46.00	49.00	84	100	N	
49.00	52.00	77	100	N	
52.00	55.00	82	100	N	
55.00	58.00	79	100	N	
58.00	61.00	78	100	N	
61.00	64.00	76	100	N	
64.00	67.00	75	100	N	
67.00	70.00	68	100	N	
70.00	73.00	71	100	N	
73.00	76.00	72	100	N	
76.00	79.00	74	100	N	
79.00	82.00	77	100	N	
82.00	85.00	83	100	N	
85.00	88.00	90	100	N	
88.00	91.00	77	100	N	
91.00	94.00	91	100	N	
94.00	97.00	96	100	N	
97.00	100.00	49	100	N	
100.00	103.00	58	100	N	
103.00	106.00	57	100	N	
106.00	109.00	67	100	N	
109.00	112.00	65	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-37

112.00	115.00	81	100	N	
115.00	118.00	94	100	N	
118.00	121.00	84	100	N	
121.00	124.00	97	100	N	
124.00	127.00	94	100	N	
127.00	130.00	84	100	N	
130.00	133.00	87	100	N	
133.00	136.00	69	100	N	
136.00	139.00	76	100	N	
139.00	142.00	53	100	N	
142.00	145.00	45	100	N	
145.00	148.00	63	100	N	
148.00	151.00	64	100	N	
151.00	154.00	81	100	N	
154.00	157.00	77	100	N	
157.00	160.00	67	100	N	
160.00	163.00	68	100	N	
163.00	166.00	45	100	N	
166.00	169.00	68	100	N	
169.00	171.50	78	100	N	

Detailed Log

Hole Number: **ES2005-38**

Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	UTM WGS 84 Coord	Local Coord	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	UTM Northing: 6,807,851.04	Local Northing: 5809.74	Contractor:	Arctic Drilling A/S
Date Started:	7/31/2005	Pulse EM Survey:	N			UTM Easting: 533,292.98	Local Easting: 5199.94	Logged by:	Rob Jones, Trevor Blair
Date Completed:	8/1/2005	Casing:	Left in Hole, capped			Elevation: 1186.65			
		Location:	Surface						

Collar Dip: -55.00
Collar Azimuth: 230.00
Length: 90.40

Comments

Purpose: Test UTEM conductor ESP_08_06, within the centre of interpreted plate (Conductivity = 400 Siemens).

Result: Intersected peridotite (35m thickness) which contained 3-5% disseminated pyrrhotite (with local concentrations up to 10%). This peridotite was bounded up- and downhole by a differentiated intrusive body (norite).

Assays: 0.74% Ni, 0.16% Cu, 0.05% Co / 1.90m (52.60-54.50m)

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Intersected sulphide-bearing ultramafic body (Heim's rock suite 2b).

Detailed Lithology

From	To		Lithology
0.00	1.50	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
1.50	49.07	**6f Norite** Norite, medium to fine grained, dark, 90% pyroxene and 10% plagioclase plus minor quartz, localy magnetic, heterogenous and massive. Overall contains 1% sulphides (po with trace cpy) that are disseminated and patchy, localy sulphides can get up to 5%. Locally dm to m scale leucocratic bands are foliated made up of 70% plagioclase and 30% pyroxenes and or amphibole, are not as mineralized as the surrounding norite (trace disseminated pyrrhotite). These are found at 18.2-19.9m, 32.60-32.80m, 43.21-44.16m, 44.90-45.64m and 46.22-49.00m. The lower contact of this unit is sharp with downhole ultramafic at 70 degrees to the ca. minor shearing present. **Minor Interval** 40.50 41.22 **6d Pyroxenite** Fine grained, massive, magnetic, homogenous, dark green pyroxenite dyke composed of 95+% pyroxenes. There are no sulphides present. The upper and lower contacts are at 45 degrees and marked by the presence of leucoxenes. **Mineralization** 22.00 33.00 2.5% Po Pyrrhotite D Disseminated tr-5%, locally 8% **Alteration** 1.50 9.35 WEA Weathering F Fracture-Controlled W Weak Iron oxide **Structure** 19.35 19.36 S1 1st Foliation **Structure** 30.30 30.31 S1 1st Foliation **Structure** 36.30 36.31 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03976	20.70	22.00	1.30	0.25	0.06	0.01	2.15	0.01	0.01	0.01	0.25
PG03977	22.00	23.50	1.50	0.33	0.06	0.02	2.99	0.01	0.01	0.01	0.25
PG03978	23.50	25.00	1.50	0.40	0.20	0.03	3.31	0.01	0.01	0.01	0.25
PG03979	25.00	26.50	1.50	0.27	0.06	0.04	2.04	0.02	0.01	0.01	0.25
PG03980	26.50	28.00	1.50	0.29	0.08	0.02	2.11	0.01	0.01	0.01	0.25
PG03981	28.00	29.50	1.50	0.43	0.21	0.03	4.06	0.01	0.01	0.03	0.70
PG03982	29.50	31.00	1.50	0.25	0.16	0.03	2.25	0.01	0.01	0.04	0.60
PG03983	31.00	32.00	1.00	0.23	0.06	0.01	1.80	0.01	0.01	0.01	0.25
PG03984	32.00	33.00	1.00	0.28	0.03	0.03	2.57	0.01	0.01	0.01	0.25
PG03985	33.00	33.50	0.50	0.24	0.08	0.01	2.08	0.01	0.01	0.01	0.25
PG03986	48.50	49.07	0.57	0.09	0.13	0.01	0.96	0.01	0.01	0.02	1.00

Detailed Lithology

From	To	Lithology
49.07	84.15	**6b Peridotite** Massive to weakly foliated (proximal to lower contact), medium grained, dark grey to black, strongly magnetic, homogenous peridotite composed of 90% pyroxenes (locally 5mm to cm scale - dusty green) and 10% serpentine (+ magnetite). This unit contains 1-10% fine grained to locally cm scale patchy sulphides (pyrrhotite with mm scale pyritic horizons (cubic cleavage), trace chalcopyrite as wisps and rims). More mineralized horizons exist within this unit (namely from the upper contact (49.07m) to 72.75m. Where sulphide concentrations approach 10%, sulphides appears as heavily disseminated to weakly net-textured. See mineralization tab for intervals. Downhole of 72.75m, the unit contains trace sulphides within a more foliated (sheared) rock. Foliation planes are marked by mm scale dark green serpentine veinlets at approximately 60-70 degrees to the ca, primarily from 80.50m to the lower contact (84.15m). 49.07-52.60m and 78.70-80.00m: mm to cm scale, white, semi-angular to semi-rounded, plagioclase-rich fragments (partially digested anorthosite xenoliths?). Proximity to upper and lower contacts. The lower contact of this unit is gradational over 50cm with the downhole norite and the contact was based on the increased presence of plagioclase as well as the magnetic susceptibility. **Mineralization** 49.07 52.60 4.0% Po Pyrrhotite FG Fine Grained **Mineralization** 52.60 54.50 10.0% Po Pyrrhotite FG Fine Grained **Mineralization** 54.50 72.75 3.0% Po Pyrrhotite FG Fine Grained

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG03987	49.07	50.50	1.43	0.33	0.19	0.03	2.52	0.01	0.01	0.03	0.80
PG03988	50.50	51.50	1.00	0.45	0.11	0.04	3.26	0.01	0.01	0.02	0.25
PG03989	51.50	52.60	1.10	0.51	0.13	0.04	3.73	0.01	0.02	0.02	0.50
PG03990	52.60	53.50	0.90	0.83	0.15	0.05	6.42	0.01	0.02	0.02	0.25
PG03991	53.50	54.50	1.00	0.65	0.17	0.05	5.00	0.01	0.02	0.02	0.25
PG03992	54.50	56.00	1.50	0.38	0.29	0.03	3.34	0.02	0.01	0.01	0.90
PG03993	56.00	57.50	1.50	0.39	0.20	0.02	3.30	0.02	0.02	0.02	0.25
PG03994	57.50	59.00	1.50	0.31	0.25	0.01	2.34	0.01	0.01	0.02	0.25
PG03995	59.00	60.50	1.50	0.28	0.13	0.01	1.94	0.01	0.01	0.01	0.25
PG03996	60.50	62.00	1.50	0.28	0.10	0.01	1.88	0.01	0.01	0.01	0.25
PG03997	62.00	63.50	1.50	0.28	0.07	0.02	1.84	0.01	0.01	0.01	0.25
PG03998	63.50	65.00	1.50	0.27	0.06	0.01	1.56	0.01	0.01	0.01	0.25
PG03999	65.00	66.50	1.50	0.44	0.14	0.04	2.70	0.01	0.01	0.01	0.25
PG01351	66.50	68.00	1.50	0.32	0.13	0.01	1.90	0.01	0.01	0.01	0.25
PG01352	68.00	69.50	1.50	0.35	0.17	0.03	2.23	0.01	0.01	0.01	0.25
PG01353	69.50	71.00	1.50	0.58	0.19	0.05	4.12	0.01	0.02	0.01	0.25
PG01354	71.00	72.75	1.75	0.37	0.15	0.03	2.52	0.01	0.01	0.01	0.25
PG01355	72.75	74.00	1.25	0.12	0.03	0.03	0.53	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
84.15	90.40	**6f Norite** Moderately foliated, fine to medium grained, dull grey to pale green, non-magnetic, homogenous leuconorite composed of 30-40% pale green to brown pyroxenes (mm scale) and 60-70% plagiolcase (translucent pink-grey, locally creamy white). This unit is as described from (1.50-49.07m). This unit contains rare trace pyrrhotite. The lower contact of this unit is unknown as the hole was shutdown. There is a 10cm wide sheared anorthosite at end of hole, which may indeed represent a lithological change (see minor unit). **Minor Interval** 90.30 90.40 **4 Anorthosite / Anorthositic Gabbro** 10cm wide, dull green to orange, well foliated (65-70 degrees to the ca), non-magnetic, unmineralized unit. This may represent a moderately sheared, altered (sausseritized?) contact between ultramafic intrusive rocks with surrounding country rocks? **Structure** 86.40 86.41 S1 1st Foliation												

Espedalen - Analysis

Hole Number: ES2005-38

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG03976	20.70	22.00	1.30	0.25	0.06	0.01	2.15	0.01	0.01	0.01	0.25																
PG03977	22.00	23.50	1.50	0.33	0.06	0.02	2.99	0.01	0.01	0.01	0.25																
PG03978	23.50	25.00	1.50	0.40	0.20	0.03	3.31	0.01	0.01	0.01	0.25																
PG03979	25.00	26.50	1.50	0.27	0.06	0.04	2.04	0.01	0.02	0.01	0.25																
PG03980	26.50	28.00	1.50	0.29	0.08	0.02	2.11	0.01	0.01	0.01	0.25																
PG03981	28.00	29.50	1.50	0.43	0.21	0.03	4.06	0.03	0.01	0.01	0.70																
PG03982	29.50	31.00	1.50	0.25	0.16	0.03	2.25	0.04	0.01	0.01	0.60																
PG03983	31.00	32.00	1.00	0.23	0.06	0.01	1.80	0.01	0.01	0.01	0.25																
PG03984	32.00	33.00	1.00	0.28	0.03	0.03	2.57	0.01	0.01	0.01	0.25																
PG03985	33.00	33.50	0.50	0.24	0.08	0.01	2.08	0.01	0.01	0.01	0.25																
PG03986	48.50	49.07	0.57	0.09	0.13	0.01	0.96	0.02	0.01	0.01	1.00																
PG03987	49.07	50.50	1.43	0.33	0.19	0.03	2.52	0.03	0.01	0.01	0.80																
PG03988	50.50	51.50	1.00	0.45	0.11	0.04	3.26	0.02	0.01	0.01	0.25																
PG03989	51.50	52.60	1.10	0.51	0.13	0.04	3.73	0.02	0.01	0.02	0.50																
PG03990	52.60	53.50	0.90	0.83	0.15	0.05	6.42	0.02	0.01	0.02	0.25																
PG03991	53.50	54.50	1.00	0.65	0.17	0.05	5.00	0.02	0.01	0.02	0.25																
PG03992	54.50	56.00	1.50	0.38	0.29	0.03	3.34	0.01	0.02	0.01	0.90																
PG03993	56.00	57.50	1.50	0.39	0.20	0.02	3.30	0.02	0.02	0.02	0.25																
PG03994	57.50	59.00	1.50	0.31	0.25	0.01	2.34	0.02	0.01	0.01	0.25																
PG03995	59.00	60.50	1.50	0.28	0.13	0.01	1.94	0.01	0.01	0.01	0.25																
PG03996	60.50	62.00	1.50	0.28	0.10	0.01	1.88	0.01	0.01	0.01	0.25																
PG03997	62.00	63.50	1.50	0.28	0.07	0.02	1.84	0.01	0.01	0.01	0.25																
PG03998	63.50	65.00	1.50	0.27	0.06	0.01	1.56	0.01	0.01	0.01	0.25																
PG03999	65.00	66.50	1.50	0.44	0.14	0.04	2.70	0.01	0.01	0.01	0.25																
PG01351	66.50	68.00	1.50	0.32	0.13	0.01	1.90	0.01	0.01	0.01	0.25																
PG01352	68.00	69.50	1.50	0.35	0.17	0.03	2.23	0.01	0.01	0.01	0.25																
PG01353	69.50	71.00	1.50	0.58	0.19	0.05	4.12	0.01	0.01	0.02	0.25																
PG01354	71.00	72.75	1.75	0.37	0.15	0.03	2.52	0.01	0.01	0.01	0.25																
PG01355	72.75	74.00	1.25	0.12	0.03	0.03	0.53	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-38

Depth	Conductivity (Siemens)	COMMENTS
52.90	65.00	uncut core
54.40	100.00	uncut core
57.00	20.00	uncut core
58.00	20.00	uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-38

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
2.00	9.07	
3.00	1.09	
4.00	4.40	
5.00	6.80	
6.00	2.39	
7.00	1.45	
8.00	2.91	
9.00	1.14	
10.00	2.24	
11.00	1.60	
12.00	15.50	
13.00	4.30	
14.00	26.80	
15.00	2.21	
16.00	3.91	
17.00	28.30	
18.00	1.00	
19.00	0.29	
20.00	0.63	
21.00	1.79	
22.00	1.25	
23.00	1.44	
24.00	2.89	
25.00	3.12	
26.00	4.22	
27.00	9.27	
28.00	1.90	
29.00	8.28	
30.00	1.70	
31.00	1.61	
32.00	2.04	
33.00	5.59	
34.00	1.49	
35.00	1.80	
36.00	1.13	
37.00	11.10	
38.00	1.16	
39.00	4.87	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-38
40.00	2.74	
41.00	15.30	
42.00	0.72	
43.00	1.29	
44.00	0.53	
45.00	0.44	
46.00	0.67	
47.00	1.03	
48.00	1.32	
49.00	6.87	
50.00	17.70	
51.00	5.33	
52.00	6.00	
53.00	48.20	
54.00	26.70	
55.00	38.50	
56.00	16.90	
57.00	20.40	
58.00	22.40	
59.00	13.20	
60.00	19.70	
61.00	50.00	
62.00	17.90	
63.00	11.90	
64.00	11.10	
65.00	9.65	
66.00	21.80	
67.00	22.90	
68.00	19.40	
69.00	25.70	
70.00	43.50	
71.00	50.00	
72.00	87.60	
73.00	74.90	
74.00	31.90	
75.00	53.20	
76.00	18.40	
77.00	22.10	
78.00	20.70	
79.00	20.30	
80.00	15.70	

Espedalen - Magnetic Susceptibility	Hole Number: ES2005-38

81.00	32.20	
82.00	55.60	
83.00	37.60	
84.00	34.00	
85.00	0.91	
86.00	0.49	
87.00	0.32	
88.00	0.35	
89.00	0.25	
90.00	1.17	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-38

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
1.50	3.00	55	100	N	
3.00	6.00	44	100	N	
6.00	9.00	63	100	N	
9.00	12.00	100	100	N	
12.00	15.00	66	100	N	
15.00	18.00	80	100	N	
18.00	21.00	94	100	N	
21.00	24.00	55	100	N	
24.00	27.00	83	100	N	
27.00	30.00	77	100	N	
30.00	33.00	72	100	N	
33.00	36.00	80	100	N	
36.00	39.00	61	100	N	
39.00	42.00	83	100	N	
42.00	45.00	77	100	N	
45.00	48.00	98	100	N	
48.00	51.00	87	100	N	
51.00	54.00	92	100	N	
54.00	57.00	84	100	N	
57.00	60.00	92	100	N	
60.00	63.00	94	100	N	
63.00	66.00	96	100	N	
66.00	69.00	94	100	N	
69.00	72.00	91	100	N	
72.00	75.00	94	100	N	
75.00	78.00	94	100	N	
78.00	81.00	96	100	N	
81.00	84.00	89	100	N	
84.00	87.00	86	100	N	
87.00	90.40	69	100	N	

Detailed Log

Hole Number: **ES2005-39** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	8/1/2005	Pulse EM Survey:	N			Logged by:	Rob Jones, Trevor Blair
Date Completed:	8/4/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,807,747.87	Local Northing:	6121.08
UTM Easting:	533,785.98	Local Easting:	5595.87
Elevation: 1255.43			

Collar Dip:	-56.00
Collar Azimuth:	230.00
Length:	115.65

Comments

Purpose: Test UTEM conductor ESP_08_05, within the centre of interpreted plate (Conductivity = 300 Siemens).

Result: Intersected oikcrystic pyroxenite apophyses within a thick package of mineralized (5-15% pyrrhotite) gabbronoritic rocks.

Assays: All assays <= 0.11% Ni.

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: An oikocrystic pyroxenite (Heim's rock suite 2b) intruded fine grained gabbronoritic rocks (Heim's rock suite 3).

Detailed Lithology

From	To		Lithology
0.00	4.50	C	**Casing**
4.50	58.60	6c	**Oikocrystic Pyroxenite** Dark grey, strongly magnetic, massive to weakly foliated olivine pyroxenite composed of 95% pyroxenes (as fine grained black groundmass, medium grained brown bronzite crystals and as cm scale light grey porphyroblasts), and 5% black serpentine veinlets. Veinlets exhibit a preferred orientation of between 55 to 75 degrees to the ca, giving the rock a striped appearance. Porphyroblastic pyroxenes are generally poorly developed, function of retrogression? Magnetite is present throughout the unit as fine grained disseminations as well as infill to tension gashes (at approximately 40m inhole). This unit contains rare trace disseminated pyrrhotite. The lower contact of this unit is weakly sheared. **Structure** 46.25 46.26 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG01356	32.00	33.00	1.00	0.07	0.05	0.01	0.23	0.01	0.01	0.01	0.25
PG01357	33.00	34.00	1.00	0.07	0.03	0.02	0.35	0.01	0.01	0.01	0.25
PG01358	34.00	35.00	1.00	0.11	0.03	0.03	0.71	0.01	0.01	0.01	0.25
PG01359	35.00	36.00	1.00	0.08	0.03	0.01	0.29	0.01	0.01	0.01	0.25
PG01360	46.00	47.00	1.00	0.07	0.03	0.01	0.36	0.01	0.01	0.02	0.25
PG01361	47.00	48.00	1.00	0.07	0.03	0.03	0.46	0.01	0.01	0.01	0.25
PG01362	48.00	49.00	1.00	0.11	0.03	0.03	0.62	0.01	0.01	0.01	0.25
PG01363	49.00	50.00	1.00	0.17	0.03	0.01	1.35	0.01	0.01	0.01	0.25
PG01364	50.00	51.00	1.00	0.10	0.03	0.04	0.64	0.01	0.01	0.01	0.25
PG01365	57.60	58.60	1.00	0.03	0.03	0.01	0.65	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
58.60	64.85	**7a Gabbronorite** Is grey brown, fine grained moderately magnetic, homogeneous and massive. 10-15% sulphides, pyrrhotite is disseminated and whispy to blebby. Fragments up to 13cm in size are of felsic composition and partially digested along their margins. The lower contact is weakly sheared. **Mineralization** 58.60 64.85 12.0% Po Pyrrhotite FG Fine Grained
64.85	75.15	**6c Oikocrystic Pyroxenite** Dark grey to black, strongly magnetic, heterogeneous varying from no pyroxenes, to pyroxene porphyroblast to 90% pyroxene. The pyroxenes are a lighter brown then the dark serpentine/magnetite matrix that also is on the foliation planes. 10% blebby po (65.90-66.90m) 1% disseminated po (66.90-74.00m) 3-5% disseminated po (74.00-74.62m) Bottom contact between 74.61 and 75.15m is cm scale broken core. **Structure** 71.30 71.31 S1 1st Foliation
75.15	83.97	**7a Gabbronorite** Grey/brown, moderately magnetic, homogeneous matrix that is medium to fine grained. Fragment rich, up to 50cm anorthosite fragment at base of unit. Generally fragments are 2-10cm brecciated and partially assimilated containing garnet. (Seds??) At 80.70m, healed fracture with pyrite and carbonate? 5-10% po disseminated to patchy. No sulphides in fragments. Conductivity up to 590 Siemens. **Mineralization** 79.15 81.25 17.0% Po Pyrrhotite FG Fine Grained

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG01366	58.60	59.00	0.40	0.03	0.03	0.01	1.62	0.01	0.01	0.01	0.25
PG01367	59.00	60.50	1.50	0.06	0.03	0.01	5.97	0.01	0.01	0.01	0.25
PG01368	60.50	62.00	1.50	0.06	0.03	0.01	4.59	0.01	0.01	0.01	0.25
PG01369	62.00	63.50	1.50	0.07	0.06	0.01	6.52	0.01	0.01	0.01	0.25
PG01370	63.50	64.85	1.35	0.07	0.03	0.01	6.45	0.01	0.01	0.01	0.25
PG01371	64.85	66.50	1.65	0.03	0.03	0.01	3.50	0.01	0.01	0.01	0.25
PG01372	66.50	68.00	1.50	0.03	0.03	0.01	1.23	0.01	0.01	0.01	0.25
PG01373	68.00	69.50	1.50	0.05	0.03	0.01	0.24	0.01	0.01	0.01	0.25
PG01374	69.50	71.00	1.50	0.06	0.03	0.01	0.39	0.01	0.01	0.01	0.25
PG01375	71.00	72.50	1.50	0.06	0.03	0.01	0.55	0.01	0.01	0.01	0.25
PG01376	72.50	74.00	1.50	0.05	0.03	0.01	0.68	0.01	0.01	0.01	0.25
PG01377	74.00	75.15	1.15	0.06	0.07	0.01	3.55	0.01	0.01	0.01	0.25
PG01378	75.15	76.50	1.35	0.03	0.03	0.01	2.62	0.01	0.01	0.01	0.25
PG01379	76.50	78.00	1.50	0.06	0.09	0.01	5.78	0.02	0.01	0.01	0.25
PG01380	78.00	79.15	1.15	0.03	0.06	0.01	4.78	0.02	0.01	0.01	0.25
PG01381	79.15	80.25	1.10	0.09	0.07	0.01	9.19	0.01	0.01	0.02	0.25
PG01382	80.25	81.35	1.10	0.08	0.07	0.01	7.40	0.01	0.01	0.01	0.25
PG01383	81.35	82.80	1.45	0.03	0.03	0.01	4.84	0.02	0.01	0.02	0.25
PG01384	82.80	83.97	1.17	0.06	0.07	0.01	6.30	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
83.97	111.28	**7b Diorite** Medium grained, green and white, fragment rich, locally magnetic, locally foliated, matrix fairly homogeneous and non-mineralized. Moderately magnetic from 99m to end of unit. Magnetic susceptibility up to 42x10-3 SI. Large fragments of felsic rocks often with garnets between 87.58-88.70m, 96.54-96.98m, 92.87-93.03m and 102.46-102.91m. Fragments have whispy partially digested margins that are sometimes sheared. Pseudo Tacholite found at 93.60m, 93.91m and 96.45m, dark black, fine grain, sharp contacts, and contain small fragments. Alteration of an unknown type found following fractures with dendritic growths, light pink/grey abundant at 89.5m. Fractures generaly contain chlorite. Strong shearing between 101.01 and 101.66m at 40 degrees to CA. Pyrrhotite flooding at 109.70-109.72m. Lower contact sharp at 45 to CA
111.28	115.65	**4 Anorthosite / Anorthositic Gabbro** Medium to coarse grained, white and light green, non magnetic, homogeneous foliated anorthosite. Chlorite alteration on fractures. Foliated at 50 degrees to CA Small dyke of Dolerite cutting at 113.12-113.21m with sharp contacts, moderately magnetic.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG01385	83.97	85.00	1.03	0.03	0.03	0.01	0.44	0.01	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2005-39

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG01356	32.00	33.00	1.00	0.07	0.05	0.01	0.23	0.01	0.01	0.01	0.25																
PG01357	33.00	34.00	1.00	0.07	0.03	0.02	0.35	0.01	0.01	0.01	0.25																
PG01358	34.00	35.00	1.00	0.11	0.03	0.03	0.71	0.01	0.01	0.01	0.25																
PG01359	35.00	36.00	1.00	0.08	0.03	0.01	0.29	0.01	0.01	0.01	0.25																
PG01360	46.00	47.00	1.00	0.07	0.03	0.01	0.36	0.02	0.01	0.01	0.25																
PG01361	47.00	48.00	1.00	0.07	0.03	0.03	0.46	0.01	0.01	0.01	0.25																
PG01362	48.00	49.00	1.00	0.11	0.03	0.03	0.62	0.01	0.01	0.01	0.25																
PG01363	49.00	50.00	1.00	0.17	0.03	0.01	1.35	0.01	0.01	0.01	0.25																
PG01364	50.00	51.00	1.00	0.10	0.03	0.04	0.64	0.01	0.01	0.01	0.25																
PG01365	57.60	58.60	1.00	0.03	0.03	0.01	0.65	0.01	0.01	0.01	0.25																
PG01366	58.60	59.00	0.40	0.03	0.03	0.01	1.62	0.01	0.01	0.01	0.25																
PG01367	59.00	60.50	1.50	0.06	0.03	0.01	5.97	0.01	0.01	0.01	0.25																
PG01368	60.50	62.00	1.50	0.06	0.03	0.01	4.59	0.01	0.01	0.01	0.25																
PG01369	62.00	63.50	1.50	0.07	0.06	0.01	6.52	0.01	0.01	0.01	0.25																
PG01370	63.50	64.85	1.35	0.07	0.03	0.01	6.45	0.01	0.01	0.01	0.25																
PG01371	64.85	66.50	1.65	0.03	0.03	0.01	3.50	0.01	0.01	0.01	0.25																
PG01372	66.50	68.00	1.50	0.03	0.03	0.01	1.23	0.01	0.01	0.01	0.25																
PG01373	68.00	69.50	1.50	0.05	0.03	0.01	0.24	0.01	0.01	0.01	0.25																
PG01374	69.50	71.00	1.50	0.06	0.03	0.01	0.39	0.01	0.01	0.01	0.25																
PG01375	71.00	72.50	1.50	0.06	0.03	0.01	0.55	0.01	0.01	0.01	0.25																
PG01376	72.50	74.00	1.50	0.05	0.03	0.01	0.68	0.01	0.01	0.01	0.25																
PG01377	74.00	75.15	1.15	0.06	0.07	0.01	3.55	0.01	0.01	0.01	0.25																
PG01378	75.15	76.50	1.35	0.03	0.03	0.01	2.62	0.01	0.01	0.01	0.25																
PG01379	76.50	78.00	1.50	0.06	0.09	0.01	5.78	0.01	0.02	0.01	0.25																
PG01380	78.00	79.15	1.15	0.03	0.06	0.01	4.78	0.01	0.02	0.01	0.25																
PG01381	79.15	80.25	1.10	0.09	0.07	0.01	9.19	0.02	0.01	0.01	0.25																
PG01382	80.25	81.35	1.10	0.08	0.07	0.01	7.40	0.01	0.01	0.01	0.25																
PG01383	81.35	82.80	1.45	0.03	0.03	0.01	4.84	0.02	0.02	0.01	0.25																
PG01384	82.80	83.97	1.17	0.06	0.07	0.01	6.30	0.01	0.01	0.01	0.25																

Espedalen - Analysis

Hole Number: ES2005-39

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG01385	83.97	85.00	1.03	0.03	0.03	0.01	0.44	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-39

Depth	Conductivity (Siemens)	COMMENTS
75.60	215.00	Uncut core
77.20	400.00	Uncut core
80.00	590.00	Uncut core
81.10	200.00	Uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-39

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
5.00	45.00	
6.00	56.40	
7.00	34.30	
8.00	67.60	
9.00	65.10	
10.00	77.50	
11.00	68.90	
12.00	54.50	
13.00	65.50	
14.00	64.10	
15.00	75.90	
16.00	50.60	
17.00	62.60	
18.00	79.30	
19.00	10.70	
20.00	92.40	
21.00	83.50	
22.00	74.40	
23.00	92.20	
24.00	73.00	
25.00	88.00	
26.00	64.10	
27.00	70.20	
28.00	78.40	
29.00	12.50	
30.00	76.70	
31.00	61.90	
32.00	63.80	
33.00	80.40	
34.00	95.40	
35.00	77.20	
36.00	69.60	
37.00	78.40	
38.00	64.90	
39.00	70.20	
40.00	90.20	
41.00	82.20	
41.00	82.20	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-39
42.00	79.50	
43.00	88.10	
44.00	63.40	
45.00	116.00	
46.00	108.00	
47.00	88.50	
48.00	56.10	
49.00	85.20	
50.00	60.00	
51.00	63.80	
52.00	49.10	
53.00	48.00	
54.00	54.70	
55.00	38.60	
56.00	37.50	
57.00	45.50	
58.00	44.40	
59.00	2.85	
60.00	1.37	
61.00	5.09	
62.00	1.48	
63.00	1.89	
64.00	5.47	
65.00	3.80	
66.00	43.00	
67.00	87.20	
68.00	67.30	
69.00	71.20	
70.00	58.90	
71.00	59.40	
72.00	87.80	
73.00	62.00	
74.00	92.10	
75.00	7.75	
76.00	2.70	
77.00	3.15	
78.00	3.51	
79.00	3.37	
80.00	10.50	
81.00	6.97	
82.00	3.49	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-39

83.00	3.23	
84.00	2.04	
85.00	0.72	
86.00	1.06	
87.00	1.26	
88.00	0.35	
88.00	0.35	
89.00	0.40	
90.00	0.59	
91.00	0.43	
92.00	0.93	
93.00	0.93	
94.00	0.50	
95.00	1.03	
96.00	1.29	
97.00	1.13	
98.00	0.62	
99.00	10.00	
100.00	1.34	
101.00	1.84	
102.00	0.71	
103.00	4.41	
104.00	24.90	
105.00	42.10	
106.00	4.79	
107.00	8.12	
108.00	20.70	
109.00	18.20	
110.00	26.70	
111.00	26.90	
112.00	1.33	
113.00	1.48	
114.00	0.59	
115.00	2.05	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-39

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
4.50	6.00	21	100	N	
6.00	9.00	41	100	N	
9.00	12.00	78	100	N	
12.00	15.00	69	100	N	
15.00	18.00	71	100	N	
18.00	21.00	73	100	N	
21.00	24.00	94	100	N	
24.00	27.00	79	100	N	
27.00	30.00	59	100	N	
30.00	33.00	80	100	N	
33.00	36.00	46	100	N	
36.00	39.00	57	100	N	
39.00	42.00	90	100	N	
42.00	45.00	66	100	N	
45.00	48.00	87	100	N	
48.00	51.00	75	100	N	
51.00	54.00	95	100	N	
54.00	57.00	62	100	N	
57.00	60.00	58	100	N	
60.00	63.00	64	100	N	
63.00	66.00	74	100	N	
66.00	69.00	65	100	N	
69.00	72.00	87	100	N	
72.00	75.00	60	100	N	
75.00	78.00	62	100	N	
78.00	81.00	66	100	N	
81.00	84.00	83	100	N	
84.00	87.00	43	100	N	
87.00	90.00	73	100	N	
90.00	93.00	62	100	N	
93.00	96.00	59	100	N	
96.00	99.00	89	100	N	
99.00	102.00	75	100	N	
102.00	105.00	66	100	N	
105.00	108.00	73	100	N	
108.00	111.00	96	100	N	
111.00	114.00	92	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-39

114.00	115.65	46	100	N	

Detailed Log

Hole Number: **ES2005-40** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y Plugged N	UTM WGS 84 Coord	Local Coord	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N Hole Size: TT46	UTM Northing: 6,808,532.67	Local Northing: 6168.34	Contractor:	Arctic Drilling A/S
Date Started:	8/4/2005	Pulse EM Survey:	N	UTM Easting: 533,189.14	Local Easting: 4611.05	Logged by:	Trevor Blair
Date Completed:	8/5/2005	Casing:	Left in Hole, capped	Elevation: 1218.59			
		Location:	Surface				

Collar Dip: -81.00
Collar Azimuth: 230.00
Length: 71.30

Comments

Purpose: Test UTEM conductor ESP_09_AW, within the centre of interpreted plate (Conductivity = 365 Siemens).

Result: The hole intersected a mineralized pyroxenite (5-10% fine grained pyrrhotite), which contained remobilized semi-massive pyrrhotite veinlets from 4.70-5.80m (1.10m) and 6.25m-6.60m (0.35m), to a total in-hole depth of 7.00m. The hole intersected an anorthosite from 7.00-71.30m, which was also the end of hole.

Assays: 0.37% Ni, 0.19% Cu, 0.05% Co / 1.90m (4.70-6.60m)

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Anorthositic terrain (Heim's rock suite 2a) intruded by narrow, locally mineralized, ultramafic to mafic bodies.

Detailed Lithology

From	To		Lithology
0.00	2.00	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
2.00	7.00	**6d Pyroxenite** Fine to medium grained, massive to weakly foliated, homogenous, magnetic pyroxenite composed of 90-95% mm scale, equigranular, well developed dark green to pale brown pyroxenes (hypersthene? bronizite?), with 5-10% finely disseminated pyrrhotite (locally remobilized to cm scale veinlets). Within the more massive sulphide-rich regions, gangue minerals are primarily host rost pyroxenite which have been preferentially aligned to define foliation planes (60 degrees to the ca). This unit contains <5% mm scale white to pale green serpentine veinlets at various angles to the core axis. The lower contact of this unit is sheared and lost within broken, disked core, at approximtealy 60 degrees to the core axis. Locally, the core is rusty on fractured or broken surfaces (groundwater infiltration). **Minor Interval** 2.00 3.15 **7a Gabbronorite** Fine grained, white-grey to grey, weakly magnetic, massive to weakly foliated gabbronorite composed of 50-60% grey to white plagioclase, 45-50% mm scale, well developed brown pyroxenes (hypersthene? bronzite?) and 5-10% finely disseminated pyrrhotite. More mafic horizons occur (cm to dm scale), which contain higher concentrations of pyrrhotite. The lower contact of this unit is difficult to ascertain, but was determined on the absolute dissappearance of visual plagioclase. **Mineralization** 4.70 5.80 30.0% Po Pyrrhotite VN Veined Fine grained to remobilized veinlets (up tc 7cm wide). **Mineralization** 6.25 6.60 45.0% Po Pyrrhotite VN Veined Fine grained to remobilized veinlets

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG01386	2.00	3.15	1.15	0.15	0.11	0.01	3.55	0.01	0.01	0.01	0.25
PG01387	3.15	4.70	1.55	0.15	0.06	0.02	3.76	0.01	0.01	0.02	0.25
PG01388	4.70	5.80	1.10	0.44	0.26	0.06	11.60	0.05	0.02	0.02	0.25
PG01389	5.80	6.25	0.45	0.07	0.03	0.01	1.89	0.01	0.01	0.01	0.25
PG01390	6.25	6.60	0.35	0.56	0.15	0.09	14.60	0.07	0.03	0.02	0.25
PG01391	6.60	7.00	0.40	0.14	0.11	0.01	2.86	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
7.00	71.30	**4 Anorthosite / Anorthositic Gabbro** Medium grained (locally coarse grained - amalgamations of pyroxenes), white-grey to green-grey, massive to moderately foliated, homogenous anorthosite. The unit appears recrystallized, as plagioclase appears as discrete mm scale pink-grey crystals and pyroxenes are locally cm scale with green reaction rims (chlorite?). This unit contains rare trace disseminated pyrrhotite. The lower contact of this unit is unknown as the hole was shutdown. **Minor Interval** 19.10 20.60 **10f Mafic dykes** Fine grained, magnetic, weakly foliated (65 to the ca), homogenous, dark green mafic dyke? composed of 95% mafic minerals (pyroxene, chlorite?) and 5% plagioclase. This unit is unmineralized. The upper and lower contacts of this unit are sharp at 80 and 65 degrees to the ca, respectively. **Minor Interval** 20.60 21.55 **7a Gabbronorite** Fine to medium grained, dark green-white, weakly foliated, weakly magnetic, homogenous gabbronorite? composed of ~50% plagioclase and 50% pyroxenes. The upper and lower contacts of this unit are sharp at 65 and 50 degrees to the ca, respectively. **Minor Interval** 57.00 64.60 **7a Gabbronorite** Fine to medium grained, dark grey, highly magnetic, massive to weakly foliated unit composed of 40-60% plagioclase, 40-60% pyroxenes and 2-3% fine grained disseminated magnetite. This unit contains dm scale anorthosite rafts (58.5-58.95m; 61.15-61.40m) which have sharp but quite irregular contacts (undulating at times). The upper and lower contacts of this unit are sharp at 65 and 30 degrees to the ca, respectively. **Structure** 8.70 8.71 S1 1st Foliation **Structure** 17.50 17.51 S1 1st Foliation **Structure** 29.50 29.51 S1 1st Foliation **Structure** 40.00 40.01 S1 1st Foliation **Structure** 41.15 41.16 S Shear Broken core ~10cm uphole, rusty, likely shear zon

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG01392	7.00	8.00	1.00	0.03	0.03	0.01	0.39	0.01	0.01	0.01	0.25

Detailed Lithology						Assay Data											
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Structure	50.75	50.76	S1	1st Foliation											
		Structure	65.50	65.51	S1	1st Foliation											

Espedalen - Analysis

Hole Number: ES2005-40

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG01386	2.00	3.15	1.15	0.15	0.11	0.01	3.55	0.01	0.01	0.01	0.25																
PG01387	3.15	4.70	1.55	0.15	0.06	0.02	3.76	0.02	0.01	0.01	0.25																
PG01388	4.70	5.80	1.10	0.44	0.26	0.06	11.60	0.02	0.05	0.02	0.25																
PG01389	5.80	6.25	0.45	0.07	0.03	0.01	1.89	0.01	0.01	0.01	0.25																
PG01390	6.25	6.60	0.35	0.56	0.15	0.09	14.60	0.02	0.07	0.03	0.25																
PG01391	6.60	7.00	0.40	0.14	0.11	0.01	2.86	0.01	0.01	0.01	0.25																
PG01392	7.00	8.00	1.00	0.03	0.03	0.01	0.39	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-40

Depth	Conductivity (Siemens)	COMMENTS
2.85	250.00	uncut core
3.40	570.00	uncut core
5.10	999.00	C=1400S, uncut core
5.30	500.00	uncut core
6.45	999.00	C=1050S, uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-40

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
2.00	2.58	
3.00	2.37	
4.00	34.00	
5.00	42.90	
6.00	66.80	
7.00	1.74	
8.00	0.32	
9.00	0.11	
10.00	0.16	
11.00	0.12	
12.00	0.15	
13.00	0.07	
14.00	0.08	
15.00	0.05	
16.00	0.23	
17.00	0.09	
18.00	0.44	
19.00	0.08	
20.00	16.10	
21.00	4.55	
22.00	0.05	
23.00	0.16	
24.00	1.00	
25.00	1.75	
26.00	0.20	
27.00	0.60	
28.00	0.52	
29.00	0.16	
30.00	0.25	
31.00	0.13	
32.00	0.66	
33.00	1.69	
34.00	0.78	
35.00	0.37	
36.00	0.14	
37.00	0.19	
38.00	0.16	
39.00	0.36	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-40

40.00	1.04	
41.00	0.23	
42.00	1.77	
43.00	22.70	
44.00	4.41	
45.00	1.41	
46.00	0.61	
47.00	0.66	
48.00	4.12	
49.00	1.91	
50.00	8.24	
51.00	23.70	
52.00	1.21	
53.00	0.44	
54.00	6.72	
55.00	23.60	
56.00	20.60	
57.00	53.20	
58.00	49.50	
59.00	78.40	
60.00	99.00	
61.00	70.10	
62.00	63.80	
63.00	72.70	
64.00	74.10	
65.00	31.30	
66.00	3.31	
67.00	22.20	
68.00	22.50	
69.00	22.70	
70.00	20.50	
71.00	19.10	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-40

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
2.00	5.00	78	100	N	
5.00	8.00	53	100	N	
8.00	11.00	87	100	N	
11.00	14.00	88	100	N	
14.00	17.00	95	100	N	
17.00	20.00	73	100	N	
20.00	23.00	61	100	N	
23.00	26.00	88	100	N	
26.00	29.00	94	100	N	
29.00	32.00	84	100	N	
32.00	35.00	89	100	N	
35.00	38.00	91	100	N	
38.00	41.00	88	100	N	
41.00	44.00	72	100	N	
44.00	47.00	89	100	N	
47.00	50.00	85	100	N	
50.00	53.00	94	100	N	
53.00	56.00	81	100	N	
56.00	59.00	93	100	N	
59.00	62.00	88	100	N	
62.00	65.00	95	100	N	
65.00	68.00	89	100	N	
68.00	71.30	77	100	N	

Detailed Log

Hole Number: **ES2005-41** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	8/5/2005	Pulse EM Survey:	N			Logged by:	Trevor Blair
Date Completed:	8/9/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,809,560.21	Local Northing:	6477.77
UTM Easting:	532,730.87	Local Easting:	3529.33
Elevation:	1293.76		

Collar Dip:	-69.00
Collar Azimuth:	230.00
Length:	182.20

Comments

Purpose: To test UTEM conductor ESP_10_08 on L3530E, approximately 140m downdip of the top edge of the modelled conductive plate (Conductivity = 375 siemens).

Result: Mineralized pyroxenite was intersected from 97.50m - 150.80m, which contains an average of 5-10% pyrrhotite (locally up to 30%) with trace pyrite and chalcopyrite.

Assays: 0.45% Ni, 0.19% Cu, 0.03% Co / 9.90m (142.10-152.00m)

Borehole UTEM: Survey to be conducted in November 2005.

Interpretation: Hole intersected mineralized pyroxenite rock which have intruded sedimentary country rocks (analogous to Heim's "hybrid rocks").

Detailed Lithology

From	To		Lithology
0.00	2.00	C	Casing

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
2.00	36.48	**6d Pyroxenite** Medium grained, equigranular, dark green, weakly to moderately magnetic, homogenous pyroxenite composed of 95% brown-green pyroxenes (bronzite?), trace to 5% plagioclase (locally white wisps). This unit contains trace to 2% finely disseminated pyrrhotite-pyrite (local chalcopyrite). The lower contact of this unit is sharp at 70 degrees to the ca. 36.25-36.48m is a reaction zone along the lower contact, which is composed of a finer grained matrix containing mm to cm scale fragments of the uphole pyroxenite and of the downhole norite. Could this be a reactivated contact due to later metamorphism? **Minor Interval** 8.60 11.35 **8 Dyke** Fine grained, black, homogenous, magnetic, unmineralized, massive to weakly foliated composed of 90% amphibole, 5-10% chlorite, 5% fine grained magnetite. The upper contact of this unit is sharp but irregular within fragments, the lower contact is sharp at 65 degrees to the ca. **Minor Interval** 32.68 32.97 **6f Norite** Fine grained, massive, homogenous, unmineralized, non-magnetic xenolith of norite composed of 60% brown-green pyroxenes and 40% white-blue plagioclase. The upper and lower contacts of this unit are sharp at 45 and 80 degrees to the ca, respectively. **Structure** 2.00 10.15 Frct Fracture Weathering profile. Rusty staining on fractured surfaces (groundwater infiltration)

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG01393	12.00	13.50	1.50	0.11	0.03	0.01	0.77	0.01	0.01	0.01	0.25
PG01394	13.50	15.00	1.50	0.18	0.03	0.01	1.59	0.01	0.01	0.01	0.25
PG01395	15.00	16.50	1.50	0.14	0.03	0.02	1.06	0.01	0.01	0.01	0.25
PG01396	16.50	18.00	1.50	0.07	0.03	0.01	0.47	0.01	0.01	0.01	0.25
PG01397	18.00	19.00	1.00	0.06	0.03	0.01	0.27	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
36.48	73.82	**6f Norite** Medium grained, massive, equigranular, non-magnetic, homogenous norite composed of 45-55% white-blue plagioclase, 45-55% brown-green pyroxenes (hypersthene? bronzite?). Locally there are dm scale horizons where pyroxene content approached 75-80% (melanorite) and these horizons contain trace to 5% fine grained, disseminated pyrite+pyrrhotite. The lower contact of this unit is sharp at 65 degrees to the ca, and was based on the dissappearance of plagioclase. The lower 5cm contains a more pyroxene-rich horizon followed by a 'typical' norite and then the recorded contact. **Minor Interval** 38.95 39.40 **6d Pyroxenite** As desrcibed from 2.0-36.48m. The upper contact is sharp at 75 degrees to the ca, the lower contact is sharp but irregular. **Minor Interval** 44.81 46.40 **8 Dyke** As described from 8.60-11.35m. The upper and lower contacts are sharp at 60 and 45 degrees to the ca, respectively. The contacts themselves each contain 2cm brecciated zones with fragments (semi-angular to rounded) of uphole dyke and downhole norite. The groundmass is finer grained (psuedotachylyte?). Contact reactivated during later metamorphism? **Minor Interval** 71.89 72.25 **6d Pyroxenite** As described from 2.00-36.48m. The upper contact is sharp at 60 degrees to the ca, with the lower contact appearing gradational.
73.82	82.17	**6d Pyroxenite** Fine to medium grained, massive to locally weakly foliated, dark green, weakly magnetic, homogenous pyroxenite composed of 95% pyroxenes, <5% plagioclase, trace disseminated magnetite. This unit contains trace disseminated pyrrhotite. The lower contact of this unit is sharp but lost within broken core.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG01398	38.00	38.95	0.95	0.03	0.03	0.01	0.18	0.01	0.01	0.01	0.25
PG01399	38.95	39.40	0.45	0.15	0.03	0.01	1.14	0.01	0.01	0.01	0.25
PG00251	39.40	41.00	1.60	0.08	0.03	0.01	0.53	0.01	0.01	0.02	0.25
PG00252	41.00	42.00	1.00	0.08	0.03	0.01	0.47	0.01	0.01	0.02	0.25
PG00253	42.00	43.00	1.00	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25
PG00254	46.40	47.00	0.60	0.07	0.03	0.01	0.48	0.01	0.01	0.01	0.25
PG00255	47.00	48.00	1.00	0.24	0.09	0.01	1.94	0.01	0.01	0.01	0.25
PG00256	48.00	49.40	1.40	0.09	0.03	0.01	0.59	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
82.17	97.50	**6f Norite** Leuconorite to melanorite. Medium grained, massive to weakly foliated, white-brown to green-brown, weakly magnetic norite. This unit contains dm to m scale variations of leucoratic to melanocratic horizons (based on ratios of plagioclase to pyroxenes). Leuconoritic horizons are composed of 60-70% plagioclase with 30-40% brown, equigranular pyroxenes (bronzite? hypersthene?). Melanoritic horizons are composed of 20-30% plagioclase with 70-80% brown, equigranular pyroxenes (bronzite? hypersthene?), with up to 3% patchy pyrrhotite (+ rare chalcopyrite). Sulphide content increases within 3m of the lower contact, as patchy flooded regions of pyrrhotite with trace chalcopyrite. These sulphides seem to be spatially related to more mafic-horizons (but with blotchy plagioclase). The lower contact of this unit is gradational over ~30cm and was based on the dissappearance of plagioclase.

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00257	94.50	96.00	1.50	0.13	0.05	0.02	1.03	0.01	0.01	0.01	0.25
PG00258	96.00	97.50	1.50	0.13	0.06	0.02	1.15	0.01	0.01	0.02	0.25

Detailed Lithology

From	To	Lithology
97.50	150.80	**6d Pyroxenite** Massive, homogenous, dark grey, moderately magnetic, fine to medium grained (locally coarse grained) pyroxenite composed of 90% pyroxenes (dark green to dark brown) and 5-10% plagioclase (interstitial to recrystallized patches). The unit overall contains trace to 4% fine grained to patchy pyrrhotite + chalcopyrite. Locally, sulphides are remobilized to form mm scale veinlets (at 97.70m, 106.75-106.82m). Within these remobilized horizons, sulphides are pyrrhotite, medium grained pyrite (yellowish hue) and chalcopyrite (wisps). Gangue minerals within these sulphide veinlets are individual pyroxene crystals. 120.00-137.80m: Zone which contains cm scale recrystallized plagioclase (dull white to bright white) as blotches and as veinlets (irregular angles to the ca), <5% overall. 126-130m: Fractured, weakly sheared, broken core with dark green to black serpentine infilling (irregular angles to the ca). 147.5-150.80m: Unit is finer grained, dull green with darker green blotches (proximal to felsic flooded regions - sweats?). Likely a function of assimilation with downhole metasediments. The sulphide content within this zone is increased to 15-30% heavily disseminated to patchy pyrrhotite + pyrite + chalcopyrite. The lower contact, which is sharp and based on the percentage of felsics within the groundmass. **Minor Interval** 100.10 100.45 **8 Dyke** Fine grained, black, massive, homogenous, magnetic dyke (Heim's dolerite?) The upper and lower contacts are sharp at 60 and 75 degrees to the ca. **Minor Interval** 107.45 108.30 **8 Dyke** As 100.10-100.45m, although proximal to the upper and lower contacts there are mm scale, light grey, poorly developed minerals (pyroxenes?), appearing as flowerettes? Very bizarre! Product of retrogression. The upper contact of this unit is sharp at 70 degrees to the ca, with the lower contact also sharp but irregular. **Mineralization** 106.75 106.82 90.0% Po Pyrrhotite VN Veined **Mineralization** 106.75 106.82 2.0% Cpy Chalcopyrite FG Fine Grained

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00259	97.50	98.00	0.50	0.18	0.03	0.01	1.26	0.01	0.01	0.01	0.25
PG00260	98.00	99.00	1.00	0.15	0.03	0.01	1.00	0.01	0.01	0.02	0.25
PG00261	99.00	100.10	1.10	0.12	0.03	0.01	0.76	0.01	0.01	0.01	0.25
PG00262	100.10	100.45	0.35	0.03	0.03	0.01	0.33	0.01	0.01	0.01	0.25
PG00263	100.45	102.00	1.55	0.14	0.08	0.03	0.98	0.01	0.01	0.01	0.25
PG00264	102.00	103.50	1.50	0.12	0.03	0.03	0.53	0.01	0.01	0.01	0.25
PG00265	103.50	105.00	1.50	0.17	0.05	0.01	0.96	0.01	0.01	0.01	0.25
PG00266	105.00	106.70	1.70	0.13	0.03	0.01	0.75	0.01	0.01	0.01	0.25
PG00267	106.70	107.00	0.30	0.59	0.15	0.06	4.25	0.01	0.01	0.01	0.25
PG00268	107.00	107.45	0.45	0.16	0.08	0.01	1.02	0.01	0.01	0.01	0.25
PG00269	107.45	108.30	0.85	0.03	0.03	0.01	0.34	0.01	0.01	0.01	0.25
PG00270	108.30	109.50	1.20	0.14	0.03	0.01	0.73	0.01	0.01	0.01	0.25
PG00271	109.50	111.00	1.50	0.19	0.03	0.01	1.01	0.01	0.01	0.01	0.25
PG00272	111.00	112.50	1.50	0.22	0.06	0.01	1.22	0.01	0.01	0.02	0.25
PG00273	112.50	114.00	1.50	0.14	0.03	0.02	0.71	0.03	0.01	0.01	0.25
PG00274	114.00	115.50	1.50	0.28	0.10	0.02	1.45	0.02	0.01	0.05	0.25
PG00276	115.50	117.00	1.50	0.32	0.18	0.01	1.92	0.02	0.01	0.01	0.25
PG00277	117.00	118.50	1.50	0.31	0.10	0.03	1.74	0.01	0.01	0.01	0.25
PG00278	118.50	120.00	1.50	0.14	0.05	0.02	0.60	0.01	0.01	0.01	0.25
PG00279	120.00	121.50	1.50	0.13	0.05	0.01	0.58	0.01	0.01	0.03	0.25
PG00280	121.50	123.00	1.50	0.19	0.06	0.01	0.87	0.02	0.01	0.01	0.25
PG00281	123.00	124.50	1.50	0.24	0.10	0.01	1.46	0.01	0.01	0.01	0.25
PG00282	124.50	126.00	1.50	0.19	0.03	0.03	0.86	0.01	0.01	0.01	0.25
PG00283	126.00	127.50	1.50	0.13	0.03	0.03	0.57	0.01	0.01	0.01	0.25
PG00284	127.50	129.00	1.50	0.15	0.08	0.02	0.84	0.01	0.01	0.02	0.25
PG00285	129.00	130.50	1.50	0.23	0.06	0.01	1.25	0.01	0.01	0.01	0.25
PG00286	130.50	132.00	1.50	0.29	0.08	0.03	1.55	0.01	0.01	0.02	0.25
PG00287	132.00	133.50	1.50	0.21	0.08	0.01	0.93	0.01	0.01	0.02	0.50
PG00288	133.50	135.00	1.50	0.22	0.05	0.01	1.02	0.01	0.01	0.01	0.25
PG00289	135.00	136.50	1.50	0.11	0.03	0.02	0.43	0.01	0.01	0.02	0.60
PG00290	136.50	138.00	1.50	0.10	0.03	0.01	0.45	0.01	0.01	0.02	0.50
PG00291	138.00	139.50	1.50	0.22	0.10	0.01	1.37	0.01	0.01	0.03	0.70
PG00292	139.50	141.00	1.50	0.19	0.06	0.02	1.09	0.01	0.01	0.03	0.25
PG00293	141.00	142.10	1.10	0.25	0.06	0.01	1.78	0.02	0.02	0.02	0.25
PG00294	142.10	143.55	1.45	0.58	0.15	0.04	4.27	0.03	0.02	0.03	0.60
PG00295	143.55	145.00	1.45	0.36	0.12	0.02	2.66	0.02	0.02	0.01	0.50
PG00296	145.00	146.00	1.00	0.27	0.12	0.01	1.97	0.01	0.01	0.01	0.60
PG00297	146.00	147.50	1.50	0.36	0.21	0.04	2.75	0.03	0.02	0.03	0.80

Detailed Lithology

From	To	Lithology
		Mineralization 106.75 106.82 5.0% Py Pyrite MG Medium Grained pentlandite?
150.80	182.20	**5a Siliceous Metasediments** Fine grained, dark grey to pink-white, well foliated, heterogenous, non-magnetic, unmineralized metasediments composed of ~75% intercalated siliceous metasediments with 25% pelitic metasediments. The unit is dominated by 25-35% pink mm scale garnets (concentrated in cm scale horizons) within a quartzofeldspathic matrix. The upper 1.20m of the unit (150.8-152m) contains 25% fine grained pyrrhotite + pyrite + chalcopyrite as foliation parallel disseminations as well as patchy blotches. At 151.95m, there is green fault gouge containing mm scale pyrite cubes, at 50 degrees to the ca. At 152m, there is sharp contact (at 50 degrees to the ca) of the sulphide mineralization (sulphide reaction front), afterwhich there is absolutely no mineralization. The lower contact of this unit is unknown as the hole was shutdown. **Minor Interval** 173.75 178.20 **8 Dyke** Fine grained, dark grey, massive, homogenous, magnetic dyke as described from 8.60-11.35m. This unit contains numerous mm scale fractures (chlorite/serpentine?) at all angles to the ca, which contain mm scale reaction rims (light grey alteration). The upper contact of this unit is sharp at 70 degrees to the ca but contains foliation parallel metasediments for 18cm. The lower contact is sharp at 60 to the ca. **Mineralization** 150.80 152.00 25.0% Po Pyrrhotite FG Fine Grained + pyrite + chalcopyrite **Structure** 152.15 152.16 S1 1st Foliation **Structure** 157.25 157.26 S1 1st Foliation **Structure** 166.50 166.51 S1 1st Foliation **Structure** 180.30 180.31 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00298	147.50	148.60	1.10	0.56	0.21	0.04	4.71	0.02	0.01	0.01	0.60
PG00299	148.60	149.70	1.10	0.42	0.18	0.03	3.24	0.01	0.02	0.03	0.50
PG00301	149.70	150.80	1.10	0.43	0.18	0.03	3.37	0.01	0.02	0.02	0.80
PG00302	150.80	152.00	1.20	0.65	0.38	0.04	4.92	0.02	0.02	0.04	1.10
PG00303	152.00	153.00	1.00	0.03	0.11	0.01	0.28	0.01	0.01	0.02	0.60

Espedalen - Analysis

Hole Number: ES2005-41

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG01393	12.00	13.50	1.50	0.11	0.03	0.01	0.77	0.01	0.01	0.01	0.25																
PG01394	13.50	15.00	1.50	0.18	0.03	0.01	1.59	0.01	0.01	0.01	0.25																
PG01395	15.00	16.50	1.50	0.14	0.03	0.02	1.06	0.01	0.01	0.01	0.25																
PG01396	16.50	18.00	1.50	0.07	0.03	0.01	0.47	0.01	0.01	0.01	0.25																
PG01397	18.00	19.00	1.00	0.06	0.03	0.01	0.27	0.01	0.01	0.01	0.25																
PG01398	38.00	38.95	0.95	0.03	0.03	0.01	0.18	0.01	0.01	0.01	0.25																
PG01399	38.95	39.40	0.45	0.15	0.03	0.01	1.14	0.01	0.01	0.01	0.25																
PG00251	39.40	41.00	1.60	0.08	0.03	0.01	0.53	0.02	0.01	0.01	0.25																
PG00252	41.00	42.00	1.00	0.08	0.03	0.01	0.47	0.02	0.01	0.01	0.25																
PG00253	42.00	43.00	1.00	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25																
PG00254	46.40	47.00	0.60	0.07	0.03	0.01	0.48	0.01	0.01	0.01	0.25																
PG00255	47.00	48.00	1.00	0.24	0.09	0.01	1.94	0.01	0.01	0.01	0.25																
PG00256	48.00	49.40	1.40	0.09	0.03	0.01	0.59	0.01	0.01	0.01	0.25																
PG00257	94.50	96.00	1.50	0.13	0.05	0.02	1.03	0.01	0.01	0.01	0.25																
PG00258	96.00	97.50	1.50	0.13	0.06	0.02	1.15	0.02	0.01	0.01	0.25																
PG00259	97.50	98.00	0.50	0.18	0.03	0.01	1.26	0.01	0.01	0.01	0.25																
PG00260	98.00	99.00	1.00	0.15	0.03	0.01	1.00	0.02	0.01	0.01	0.25																
PG00261	99.00	100.10	1.10	0.12	0.03	0.01	0.76	0.01	0.01	0.01	0.25																
PG00262	100.10	100.45	0.35	0.03	0.03	0.01	0.33	0.01	0.01	0.01	0.25																
PG00263	100.45	102.00	1.55	0.14	0.08	0.03	0.98	0.01	0.01	0.01	0.25																
PG00264	102.00	103.50	1.50	0.12	0.03	0.03	0.53	0.01	0.01	0.01	0.25																
PG00265	103.50	105.00	1.50	0.17	0.05	0.01	0.96	0.01	0.01	0.01	0.25																
PG00266	105.00	106.70	1.70	0.13	0.03	0.01	0.75	0.01	0.01	0.01	0.25																
PG00267	106.70	107.00	0.30	0.59	0.15	0.06	4.25	0.01	0.01	0.01	0.25																
PG00268	107.00	107.45	0.45	0.16	0.08	0.01	1.02	0.01	0.01	0.01	0.25																
PG00269	107.45	108.30	0.85	0.03	0.03	0.01	0.34	0.01	0.01	0.01	0.25																
PG00270	108.30	109.50	1.20	0.14	0.03	0.01	0.73	0.01	0.01	0.01	0.25																
PG00271	109.50	111.00	1.50	0.19	0.03	0.01	1.01	0.01	0.01	0.01	0.25																
PG00272	111.00	112.50	1.50	0.22	0.06	0.01	1.22	0.02	0.01	0.01	0.25																

Espedalen - Analysis

Hole Number: ES2005-41

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00273	112.50	114.00	1.50	0.14	0.03	0.02	0.71	0.01	0.03	0.01	0.25																
PG00274	114.00	115.50	1.50	0.28	0.10	0.02	1.45	0.05	0.02	0.01	0.25																
PG00276	115.50	117.00	1.50	0.32	0.18	0.01	1.92	0.01	0.02	0.01	0.25																
PG00277	117.00	118.50	1.50	0.31	0.10	0.03	1.74	0.01	0.01	0.01	0.25																
PG00278	118.50	120.00	1.50	0.14	0.05	0.02	0.60	0.01	0.01	0.01	0.25																
PG00279	120.00	121.50	1.50	0.13	0.05	0.01	0.58	0.03	0.01	0.01	0.25																
PG00280	121.50	123.00	1.50	0.19	0.06	0.01	0.87	0.01	0.02	0.01	0.25																
PG00281	123.00	124.50	1.50	0.24	0.10	0.01	1.46	0.01	0.01	0.01	0.25																
PG00282	124.50	126.00	1.50	0.19	0.03	0.03	0.86	0.01	0.01	0.01	0.25																
PG00283	126.00	127.50	1.50	0.13	0.03	0.03	0.57	0.01	0.01	0.01	0.25																
PG00284	127.50	129.00	1.50	0.15	0.08	0.02	0.84	0.02	0.01	0.01	0.25																
PG00285	129.00	130.50	1.50	0.23	0.06	0.01	1.25	0.01	0.01	0.01	0.25																
PG00286	130.50	132.00	1.50	0.29	0.08	0.03	1.55	0.02	0.01	0.01	0.25																
PG00287	132.00	133.50	1.50	0.21	0.08	0.01	0.93	0.02	0.01	0.01	0.50																
PG00288	133.50	135.00	1.50	0.22	0.05	0.01	1.02	0.01	0.01	0.01	0.25																
PG00289	135.00	136.50	1.50	0.11	0.03	0.02	0.43	0.02	0.01	0.01	0.60																
PG00290	136.50	138.00	1.50	0.10	0.03	0.01	0.45	0.02	0.01	0.01	0.50																
PG00291	138.00	139.50	1.50	0.22	0.10	0.01	1.37	0.03	0.01	0.01	0.70																
PG00292	139.50	141.00	1.50	0.19	0.06	0.02	1.09	0.03	0.01	0.01	0.25																
PG00293	141.00	142.10	1.10	0.25	0.06	0.01	1.78	0.02	0.02	0.02	0.25																
PG00294	142.10	143.55	1.45	0.58	0.15	0.04	4.27	0.03	0.03	0.02	0.60																
PG00295	143.55	145.00	1.45	0.36	0.12	0.02	2.66	0.01	0.02	0.02	0.50																
PG00296	145.00	146.00	1.00	0.27	0.12	0.01	1.97	0.01	0.01	0.01	0.60																
PG00297	146.00	147.50	1.50	0.36	0.21	0.04	2.75	0.03	0.03	0.02	0.80																
PG00298	147.50	148.60	1.10	0.56	0.21	0.04	4.71	0.01	0.02	0.01	0.60																
PG00299	148.60	149.70	1.10	0.42	0.18	0.03	3.24	0.03	0.01	0.02	0.50																
PG00301	149.70	150.80	1.10	0.43	0.18	0.03	3.37	0.02	0.01	0.02	0.80																
PG00302	150.80	152.00	1.20	0.65	0.38	0.04	4.92	0.04	0.02	0.02	1.10																
PG00303	152.00	153.00	1.00	0.03	0.11	0.01	0.28	0.02	0.01	0.01	0.60																

Espedalen - Conductivity

Hole Number: ES2005-41

Depth	Conductivity (Siemens)	COMMENTS
97.70	100.00	uncut core
106.80	500.00	uncut core
142.68	210.00	uncut core
142.93	120.00	uncut core
148.15	400.00	uncut core
148.24	680.00	uncut core
148.50	360.00	uncut core
149.31	175.00	uncut core
150.62	300.00	uncut core
150.92	50.00	uncut core
151.25	100.00	uncut core
151.49	250.00	uncut core
151.80	999.00	C=1100S, uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-41

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
2.00	0.69	
3.00	0.49	
4.00	2.94	
5.00	3.10	
6.00	0.61	
7.00	0.69	
8.00	2.36	
9.00	41.10	
10.00	24.60	
11.00	36.50	
12.00	11.30	
13.00	7.65	
14.00	10.00	
15.00	19.40	
16.00	4.06	
17.00	3.32	
18.00	12.10	
19.00	6.83	
20.00	5.80	
21.00	7.66	
22.00	9.11	
23.00	1.83	
24.00	6.40	
25.00	4.91	
26.00	3.95	
27.00	4.25	
28.00	11.20	
29.00	4.31	
30.00	6.88	
31.00	7.50	
32.00	7.90	
33.00	5.28	
34.00	9.61	
35.00	5.94	
36.00	15.40	
37.00	0.92	
38.00	0.53	
39.00	1.39	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-41
40.00	0.70	
41.00	0.71	
42.00	0.39	
43.00	0.84	
44.00	0.34	
45.00	42.40	
46.00	38.50	
47.00	1.94	
48.00	1.59	
49.00	6.35	
50.00	0.46	
51.00	2.01	
52.00	0.52	
53.00	1.50	
54.00	0.48	
55.00	0.49	
56.00	0.29	
57.00	0.73	
58.00	0.41	
59.00	0.47	
60.00	0.48	
61.00	0.42	
62.00	0.56	
63.00	0.44	
64.00	0.62	
65.00	0.45	
66.00	0.37	
67.00	0.45	
68.00	0.57	
69.00	0.60	
70.00	0.99	
71.00	0.45	
72.00	26.60	
73.00	0.41	
74.00	8.05	
75.00	9.84	
76.00	2.55	
77.00	7.15	
78.00	3.56	
79.00	1.34	
80.00	2.38	

Espedalen - Magnetic Susceptibility	Hole Number: ES2005-41

81.00	4.57	
82.00	1.79	
83.00	0.48	
84.00	3.59	
85.00	0.99	
86.00	0.95	
87.00	1.08	
88.00	0.48	
89.00	0.75	
90.00	0.70	
91.00	0.53	
92.00	0.61	
93.00	0.81	
94.00	12.30	
95.00	0.73	
96.00	0.58	
97.00	1.85	
98.00	20.90	
99.00	4.46	
100.00	3.83	
101.00	17.30	
102.00	7.32	
103.00	12.00	
104.00	10.60	
105.00	9.72	
106.00	4.78	
107.00	11.20	
108.00	16.20	
109.00	6.07	
110.00	4.28	
111.00	4.27	
112.00	3.88	
113.00	5.77	
114.00	2.75	
115.00	3.26	
116.00	5.75	
117.00	6.50	
118.00	6.25	
119.00	3.40	
120.00	4.59	
121.00	3.48	

Espedalen - Magnetic Susceptibility	Hole Number: ES2005-41

122.00	5.01	
123.00	7.55	
124.00	7.32	
125.00	13.80	
126.00	11.40	
127.00	7.76	
128.00	19.20	
129.00	8.48	
130.00	7.59	
131.00	7.30	
132.00	3.90	
133.00	13.10	
134.00	6.89	
135.00	3.24	
136.00	5.25	
137.00	7.68	
138.00	18.40	
139.00	3.68	
140.00	9.96	
141.00	9.07	
142.00	17.20	
143.00	18.60	
144.00	8.96	
145.00	9.88	
146.00	15.90	
147.00	3.62	
148.00	3.44	
149.00	10.10	
150.00	14.50	
151.00	2.38	
152.00	1.15	
153.00	0.24	
154.00	1.53	
155.00	0.53	
156.00	0.64	
157.00	0.70	
158.00	0.49	
159.00	0.81	
160.00	0.82	
161.00	2.40	
162.00	1.98	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-41

163.00	2.50	
164.00	2.03	
165.00	1.89	
166.00	0.33	
167.00	0.64	
168.00	0.33	
169.00	0.22	
170.00	0.09	
171.00	0.15	
172.00	0.15	
173.00	0.39	
174.00	1.64	
175.00	10.30	
176.00	19.00	
177.00	19.70	
178.00	25.10	
179.00	1.79	
180.00	1.49	
181.00	0.75	
182.00	0.22	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-41

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
2.00	5.00	18	100	N	
5.00	8.00	30	100	N	
8.00	11.00	41	100	N	
11.00	14.00	100	100	N	
14.00	17.00	96	100	N	
17.00	20.00	80	100	N	
20.00	23.00	90	100	N	
23.00	26.00	100	100	N	
26.00	29.00	97	100	N	
29.00	32.00	100	100	N	
32.00	35.00	97	100	N	
35.00	38.00	100	100	N	
38.00	41.00	99	100	N	
41.00	44.00	91	100	N	
44.00	47.00	100	100	N	
47.00	50.00	96	100	N	
50.00	53.00	97	100	N	
53.00	56.00	100	100	N	
56.00	59.00	98	100	N	
59.00	62.00	100	100	N	
62.00	65.00	100	100	N	
65.00	68.00	100	100	N	
68.00	71.00	99	100	N	
71.00	74.00	91	100	N	
74.00	77.00	94	100	N	
77.00	80.00	89	100	N	
80.00	83.00	97	100	N	
83.00	86.00	84	100	N	
86.00	89.00	82	100	N	
89.00	92.00	88	100	N	
92.00	95.00	99	100	N	
95.00	98.00	92	100	N	
98.00	101.00	90	100	N	
101.00	104.00	90	100	N	
104.00	107.00	93	100	N	
107.00	110.00	80	100	N	
110.00	113.00	88	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-41

113.00	116.00	97	100	N	
116.00	119.00	98	100	N	
119.00	122.00	100	100	N	
122.00	125.00	91	100	N	
125.00	128.00	54	100	N	
128.00	131.00	71	100	N	
131.00	134.00	100	100	N	
134.00	137.00	94	100	N	
137.00	140.00	96	100	N	
140.00	143.00	98	100	N	
143.00	146.00	91	100	N	
146.00	149.00	79	100	N	
149.00	152.00	99	100	N	
152.00	155.00	47	100	N	
155.00	158.00	58	100	N	
158.00	161.00	81	100	N	
161.00	164.00	85	100	N	
164.00	167.00	77	100	N	
167.00	170.00	47	100	N	
170.00	173.00	54	100	N	
173.00	176.00	75	100	N	
176.00	179.00	76	100	N	
179.00	182.20	54	100	N	

Detailed Log

Hole Number: **ES2005-42** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	UTM WGS 84 Coord	Local Coord	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	UTM Northing: 6,803,277.46	Local Northing: 3827.88	Contractor:	Arctic Drilling A/S
Date Started:	8/12/2005	Pulse EM Survey:	N			UTM Easting: 534,543.54	Local Easting: 9507.35	Logged by:	Trevor Blair
Date Completed:	8/13/2005	Casing:	Left in Hole. capped			Elevation: 877.30			
		Location:	Surface						

Collar Dip: -76.00
Collar Azimuth: 228.00
Length: 36.00

Comments

Purpose: To test UTEM conductor ESP_24_20 on L9500E, approximately 30m grid east of the centre of the modelled conductive plate (Conductivity = 2000 siemens).

Result: Intersected well mineralized norite (30-55% po-pn-cpy) from 2.55m to 9.75m (7.20m), followed by Espedalen complex anorthosites.

Assays: 1.05% Ni, 0.46% Cu, 0.06% Co / 7.20m (2.55-9.75m)
including 1.32% Ni, 0.48% Cu, 0.07% Co / 2.95m (2.55-5.50m)

Lithological interpretation: Anorthositic terrain (Heim's rock suite 2a) intruded by mineralized mafic body (Heim's rock suite 2b).

Detailed Lithology

From	To		Lithology
0.00	2.55	C	**Casing** 15cm of mineralized oversize was recovered (2.55m-2.70m).

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
2.55	9.75	**6f Norite** Medium grained, equigranular, massive, weakly to moderately magnetic, dark green to brown norite composed of 75-90% dark green to black pyroxenes and 10-25% white plagioclase. Locally, some horizons appear more leucocratic whereas others appear pyroxenitic in composition. This unit contains 30-55% heavily disseminated to net-textured sulphides (~95% pyrrhotite - 5% chalcopyrite) throughout. Within the more semi-massive regions (cm to locally dm scale), semi-rounded ultramafic clasts are present. The lower contact of this unit is sharp at 75 degrees to the ca along a 1cm wide massive sulphide veinlet. **Mineralization** 2.55 9.75 40.0% Po Pyrrhotite NT Net-Textured 30-55% sulphides **Mineralization** 2.55 9.75 5.0% Cpy Chalcopyrite D Disseminated
9.75	27.40	**4s Sausseritized/Tectonized Anorthosite** Medium grained, light grey to white, moderately foliated, non-magnetic anorthosite / anorthositic gabbro. This unit is unmineralized. The lower contact of this unit is quite sharp at 70 degrees to the ca, although there are many broken, sheared pieces of anorthosite within a finer grained black matrix, which is concordant with foliation angles and cm wide mafic bands (doleritic affinity?). **Minor Interval** 16.17 16.33 **8a Dolerite** Fine grained, black to dark green, homogenous, weakly magnetic, massive dolerite dyke (Heim) with sharp but irregular contacts. The anorthosite up and down hole of this dyklet appears bright white (alteration halo from intrusive) - recrystallized? **Mineralization** 10.34 10.35 95.0% Po Pyrrhotite M Massive

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00304	2.55	4.00	1.45	1.26	0.57	0.08	13.20	0.07	0.11	0.06	1.50
PG00305	4.00	5.50	1.50	1.38	0.40	0.06	14.50	0.14	0.12	0.08	0.90
PG00306	5.50	7.00	1.50	0.80	0.48	0.05	8.06	0.06	0.07	0.06	1.20
PG00307	7.00	8.50	1.50	0.93	0.41	0.06	9.38	0.06	0.08	0.13	0.80
PG00308	8.50	9.75	1.25	0.84	0.46	0.05	8.54	0.09	0.08	0.09	1.10
PG00309	9.75	10.35	0.60	0.39	0.14	0.03	4.05	0.02	0.04	0.05	0.25
PG00310	10.35	11.50	1.15	0.06	0.07	0.01	0.63	0.01	0.01	0.03	0.25

Detailed Lithology			Assay Data											
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
27.40	36.00	**8a Dolerite** Medium grained, black to green and white, homogenous, moderately foliated, weakly to moderately magnetic dolerite composed of 40-50% plagioclase and 50-60% pyroxenes. This entire unit exhibits an ophitic texture. Chilled upper contact over 4cm. The unit is unmineralized. The lower contact is unknown as the hole was shutdown.												

Espedalen - Analysis

Hole Number: ES2005-42

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00304	2.55	4.00	1.45	1.26	0.57	0.08	13.20	0.06	0.07	0.11	1.50																
PG00305	4.00	5.50	1.50	1.38	0.40	0.06	14.50	0.08	0.14	0.12	0.90																
PG00306	5.50	7.00	1.50	0.80	0.48	0.05	8.06	0.06	0.06	0.07	1.20																
PG00307	7.00	8.50	1.50	0.93	0.41	0.06	9.38	0.13	0.06	0.08	0.80																
PG00308	8.50	9.75	1.25	0.84	0.46	0.05	8.54	0.09	0.09	0.08	1.10																
PG00309	9.75	10.35	0.60	0.39	0.14	0.03	4.05	0.05	0.02	0.04	0.25																
PG00310	10.35	11.50	1.15	0.06	0.07	0.01	0.63	0.03	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-42

Depth	Conductivity (Siemens)	COMMENTS
2.65	999.00	C=2300S, uncut core
3.00	999.00	C=1460S, uncut core
3.55	950.00	uncut core
4.30	999.00	C=2260S, uncut core
5.07	999.00	C=1450S, uncut core
6.30	450.00	uncut core
6.85	630.00	uncut core
7.15	475.00	uncut core
8.22	580.00	uncut core
8.55	220.00	uncut core
9.17	170.00	uncut core
9.50	520.00	uncut core
9.68	860.00	uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-42

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
3.00	5.05	
4.00	8.96	
5.00	13.00	
6.00	4.80	
7.00	10.80	
8.00	5.03	
9.00	9.46	
10.00	0.24	
11.00	0.12	
12.00	0.20	
13.00	0.14	
14.00	0.19	
15.00	0.09	
16.00	0.12	
17.00	0.08	
18.00	0.25	
19.00	0.10	
20.00	0.15	
21.00	0.11	
22.00	0.07	
23.00	0.11	
24.00	0.14	
25.00	0.07	
26.00	0.08	
27.00	0.12	
28.00	1.69	
29.00	0.77	
30.00	1.70	
31.00	0.48	
32.00	0.91	
33.00	1.43	
34.00	3.62	
35.00	7.23	
36.00	12.50	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-42

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
2.55	5.00	92	100	N	
5.00	8.00	88	100	N	
8.00	11.00	90	100	N	
11.00	14.00	65	100	N	
14.00	17.00	83	100	N	
17.00	20.00	74	100	N	
20.00	23.00	87	100	N	
23.00	26.00	85	100	N	
26.00	29.00	77	100	N	
29.00	32.00	59	100	N	
32.00	35.00	36	100	N	
35.00	36.00	67	100	N	

Detailed Log

Hole Number: **ES2005-43** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	8/13/2005	Pulse EM Survey:	N			Logged by:	Lars Weiershaeuser
Date Completed:	8/14/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,803,313.17	Local Northing:	3820.90
UTM Easting:	534,504.46	Local Easting:	9454.88
Elevation: 879.66			

Collar Dip:	-79.00
Collar Azimuth:	50.00
Length:	46.30

Comments

Purpose: To test UTEM conductor ESP_24_20 on L9455E, approximately 20m grid west of the centre of the modelled conductive plate (Conductivity = 2000 siemens).

Result: No mineralization / conductor intersected. Intersected sausseritized anorthosites with a crosscutting dolerite.

Assays: No samples taken.

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Anorthositic terrain intruded by mafic body.

Detailed Lithology

From	To		Lithology
0.00	3.20	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
3.20	25.74	**4s Sausseritized/Tectonized Anorthosite** This unit consists of a fine-grained, non-magnetic,h omogeneous, white and gray rock. The rock consists mainly of white anorthosite; it contains abundant dark gray to black alteration minerals. This unit is not foliated but is cut by numerous small mm-scale veinlets. Two minor units are contained within this unit. This unit is not mineralized. **Minor Interval** 8.95 9.74 **10f Mafic dykes** Fine-grained, non-magnetic, dark green to black mafic intrusive. The upper and lower contacts are sharp at 15 and 45 degrees tca. respectively. This unit is not mineralized. **Minor Interval** 10.60 11.99 **8a Dolerite** Fine to medium-grained, moderately magnetic, black-and-white dolerite (diabase) with typical ophitic texture. The upper and lower contacts are sharp; the upper is 10 tca, the lower one is irregular. This unit is not mineralized.												
25.74	38.85	**8a Dolerite** This unit consists of medium-grained, non- to weakly foliated dolerite (diabase) with typical ophitic texture. The unit, especially the upper part, is magnetic. The upper contact is fine-grained (chilled?) over ca. 10cm. The contact is sharp but irregular. Between 32.83m and 38.85m the unit interfingers with a mafic dyke (10f). The upper contact of this zone is sharp, irregular and brecciated over ca. 15cm. This unit becomes somewhat finer-grained towards the footwall. Locally, this unit contains trace sulfide mineralization. **Structure** 29.26 29.27 S1 1st Foliation **Structure** 35.45 35.46 S1 1st Foliation												

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
38.85	46.30	**4s Sausseritized/Tectonized Anorthosite** This unit consists of a fine-grained, non-magnetic, homogeneous, white and gray rock. The rock consists mainly of white anorthosite; it contains abundant dark gray to black alteration minerals. This unit is not foliated but is cut by numerous small mm-scale veinlets. One minor unit is contained within this unit. This unit is not mineralized. **Minor Interval** 44.13 45.86 **6b Peridotite** Fine to medium-grained dark gray to greenish, non-magnetic, homogeneous unit. The rock is not foliated. The upper and lower contacts are sharp at 60 and 45 degrees tca, respectively. Locally, trace sulfide can be seen.												

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-43

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
4.00	0.22	
5.00	0.07	
6.00	0.07	
7.00	0.05	
8.00	0.05	
9.00	0.24	
10.00	0.21	
11.00	1.28	
12.00	0.21	
13.00	0.13	
14.00	0.08	
15.00	0.10	
16.00	0.17	
17.00	0.10	
18.00	0.08	
19.00	0.02	
20.00	0.13	
21.00	0.11	
22.00	0.06	
23.00	0.09	
24.00	0.10	
25.00	0.30	
26.00	4.57	
27.00	11.80	
28.00	9.32	
29.00	4.09	
30.00	2.78	
31.00	0.57	
32.00	0.82	
33.00	1.14	
34.00	0.76	
35.00	1.28	
36.00	0.54	
37.00	0.37	
38.00	0.44	
39.00	0.11	
40.00	0.18	
41.00	0.07	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-43

42.00	0.14	
43.00	0.12	
44.00	0.17	
45.00	0.65	
46.00	0.10	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-43

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
3.20	6.00	80	100	N	
6.00	9.00	57	100	N	
9.00	12.00	45	100	N	
12.00	15.00	77	100	N	
15.00	18.00	85	100	N	
18.00	21.00	94	100	N	
21.00	24.00	97	100	N	
24.00	27.00	59	100	N	
27.00	30.00	55	100	N	
30.00	33.00	37	100	N	
33.00	36.00	37	100	N	
36.00	39.00	65	100	N	
39.00	42.00	73	100	N	
42.00	46.30	80	100	N	

Detailed Log

Hole Number: **ES2005-44** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	UTM WGS 84 Coord	Local Coord	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	UTM Northing: 6,803,313.81	Local Northing: 3821.90	Contractor:	Arctic Drilling A/S
Date Started:	8/17/2005	Pulse EM Survey:	N			UTM Easting: 534,505.23	Local Easting: 9454.88	Logged by:	Yannick Beaudoin
Date Completed:	8/18/2005	Casing:	Left in Hole, capped			Elevation: 879.66			
		Location:	Surface						

Collar Dip:	-45.00
Collar Azimuth:	50.00
Length:	40.45

Comments

Purpose: To test UTEM conductor ESP_24_20 on L9455E, approximately 20m grid west of the centre of the modelled conductive plate (Conductivity = 2000 siemens).

Result: No mineralization / conductor intersected. Intersected sausseritized anorthosites with crosscutting mafics.

Assays: No samples taken.

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Anorthositic terrain intruded by mafic body.

Detailed Lithology

From	To		Lithology
0.00	5.80	C	**Casing**
5.80	37.56	4s	**Sausseritized/Tectonized Anorthosite** Medium to locally coarse grained, non-magnetic, foliated to locally strongly foliated, sausseritized anorthosite/anorthositic gabbro. Sausseritization produces an overall gray-purplish tint to the unit. Unit is unmineralized. Lower contact with dolerite is sharp at 90 degrees to ca. **Structure** 22.85 22.86 S1 1st Foliation **Structure** 34.83 34.84 S1 1st Foliation **Structure** 37.55 37.56 UC Upper Contact contact 4s with 8a; sharp

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
37.56	40.45	**8a Dolerite** Medium grained, chloritized, weakly foliated, greenish mafic intrusive unit. Cm scale fragments of 4s are observed in the unit. Unit is unmineralized. Upper contact with 4s is sharp at 90 degrees to ca. **Minor Interval** 37.82 37.89 **4s Sausseritized/Tectonized Anorthosite** Fragment of 4s in dolerite dyke.												

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-44

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
7.00	0.26	
8.00	0.14	
9.00	0.12	
10.00	0.12	
11.00	0.18	
12.00	0.12	
13.00	0.90	
14.00	0.11	
15.00	0.13	
16.00	0.26	
17.00	0.12	
18.00	0.11	
19.00	0.04	
20.00	0.09	
21.00	0.88	
22.00	0.29	
23.00	0.01	
24.00	0.03	
25.00	0.05	
26.00	0.04	
27.00	0.07	
28.00	0.02	
29.00	0.07	
30.00	0.13	
31.00	0.10	
32.00	0.01	
33.00	0.01	
34.00	0.01	
35.00	0.03	
36.00	0.08	
37.00	0.04	
38.00	4.28	
39.00	6.28	
40.00	4.43	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-44

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
5.80	8.00	50	100	N	
8.00	11.00	43	100	N	
11.00	14.00	67	100	N	
14.00	17.00	84	100	N	
17.00	20.00	72	100	N	
20.00	23.00	61	100	N	
23.00	26.00	97	100	N	
26.00	29.00	96	100	N	
29.00	32.00	82	100	N	
32.00	35.00	56	100	N	
35.00	38.00	64	100	N	
38.00	40.45	29	100	N	

Detailed Log

Hole Number: **ES2005-45** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	8/19/2005	Pulse EM Survey:	N			Logged by:	Yannick Beaudoin
Date Completed:	8/26/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,802,713.83	Local Northing:	2250.99
UTM Easting:	532,957.99	Local Easting:	8919.95
Elevation: 1048.67			

Collar Dip:	-70.00
Collar Azimuth:	230.00
Length:	159.40

Comments

Purpose: Test UTEM conductor ESP_22_19, within the centre of interpreted plate (Conductivity = 75 Siemens) at a vertical depth of 85m.

Result: The hole intersected a mineralized peridotite from 92.19m-122.24m (30.05m), which contained 5-15% fine grained pyrrhotite from 111.10-119.83m (8.73m) and 6.25m-6.60m (0.35m). Uphole of this mineralized peridotite, a series of intermixed anorthosites, mafic and ultramafic rocks were intersected (pyroxenite, peridotite and norite).

Assays: 0.23% Ni, 0.14% Cu, 0.03% Co / 8.73m (111.10-119.83m).

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Anorthositic terrain (Heim's rock suite 2a) intruded by narrow, locally mineralized, ultramafic to mafic bodies (Heim's rock suite 2b).

Detailed Lithology

From	To		Lithology
0.00	7.50	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
7.50	25.38	**4 Anorthosite / Anorthositic Gabbro** Medium grained, light grey to white, strongly foliated, anorthosite / anorthositic gabbro. Above 18.60m, plagioclase is generally white with dark green to dark gray mafic minerals. From 18.60m (minor unit), sausseritization of the plagioclase is more pervasive producing an overall purplish-gray coloration. The entire major interval is unmineralized and non-magnetic. The lower contact of this unit (upper contact of following unit) is sharp at 78 degrees to the ca. Core recovery is not 100% over the major interval. The unit is locally crumbly as a result of shearing. **Minor Interval** 7.50 18.60 **4 Anorthosite / Anorthositic Gabbro** **Minor Interval** 18.60 25.38 **4s Sausseritized/Tectonized Anorthosite** **Structure** 8.67 8.68 S1 1st Foliation **Structure** 16.40 16.55 S Shear crumbled core; no measurement **Structure** 21.69 21.70 S1 1st Foliation **Structure** 25.37 25.38 UC Upper Contact											
25.38	31.08	**10f Mafic dykes** This unit is a fine to medium grained, strongly foliated, altered (chloritized?) mafic intrusive or flow. The unit is unmineralized and non-magnetic. Both upper and lower contacts are sharp at 78 degrees to ca and 88 degrees to ca, respectively. **Structure** 29.24 29.25 S1 1st Foliation **Structure** 31.07 31.08 S1 1st Foliation											

Detailed Lithology

From	To	Lithology
31.08	41.14	**4 Anorthosite / Anorthositic Gabbro** Medium grained, light grey to white, strongly foliated, anorthosite / anorthositic gabbro. Above 36.20m, plagioclase is generally white with dark green to dark gray mafic minerals. Mafic minerals dominate over felsic ones. Anorthosite is unmineralized. From 36.20m (minor unit), sausseritization of the plagioclase is more pervasive producing an overall purplish-gray coloration. Grain size is overall medium to locally coarse grained. The entire major interval is unmineralized and non-magnetic. The upper contact of this unit (lower contact of previous uniut) is sharp at 75 degrees to the ca. The lower contact (upper contact of following unit) is somewhat diffuse at 90 degrees to ca. **Minor Interval** 31.08 36.20 **4 Anorthosite / Anorthositic Gabbro** **Minor Interval** 36.20 39.59 **4s Sausseritized/Tectonized Anorthosite** **Minor Interval** 39.59 40.19 **6d Pyroxenite** Medium grained, equigranular, dark green, weakly to moderately magnetic, homogenous pyroxenite composed of 95% brown-green pyroxenes , trace to 5% plagioclase (locally white wisps). This unit contains trace to 3% finely disseminated pyrrhotite-pyrite (trace chalcopyrite). The upper and lower contacts of this minor unit are sharp at 70 and 75 degrees to ca, respectively. **Minor Interval** 40.77 41.14 **6d Pyroxenite** Medium grained, equigranular, dark green, weakly to moderately magnetic, homogenous pyroxenite composed of 95% brown-green pyroxenes , trace to 5% plagioclase (locally white wisps). This unit contains trace to 3% finely disseminated pyrrhotite-pyrite (trace chalcopyrite). The upper and lower contacts of this minor unit are sharp at 84 and 90 degrees to ca respectively. **Mineralization** 39.59 40.19 2.0% Po Pyrrhotite D Disseminated

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00311	38.59	39.59	1.00	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.60
PG00312	39.59	39.79	0.20	0.03	0.03	0.01	0.19	0.01	0.01	0.01	0.25
PG00313	39.79	39.99	0.20	0.03	0.03	0.01	0.57	0.01	0.01	0.01	0.25
PG00314	39.99	40.19	0.20	0.03	0.03	0.01	1.22	0.01	0.01	0.01	0.25
PG00315	40.19	41.14	0.95	0.03	0.03	0.01	0.28	0.01	0.01	0.01	0.25

Detailed Lithology							Assay Data											
From	To	Lithology					Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Mineralization	39.59	40.19	0.5%	Py D Pyrite Disseminated												
		Mineralization	40.77	41.14	2.0%	Py D Pyrite Disseminated												
		Mineralization	40.77	41.14	1.0%	Po D Pyrrhotite Disseminated												
		Structure	37.69	37.70	UC Upper Contact sharp													
		Structure	41.13	41.14	LC Lower Contact sharp													

Detailed Lithology

From	To	Lithology
41.14	43.94	**6f Norite** Medium grained, equigranular, massive, weakly magnetic, dark gray norite composed of 75-90% dark gray to black pyroxenes and 10-25% white plagioclase. The unit is essentially unmineralized except for a mm scale veinlet, which is cross cutting. The upper and lower contacts of the unit are sharp at 78 and 90 respectively. Contacts with minor 6d unit are sharp. **Minor Interval** 41.44 41.71 **6d Pyroxenite** Medium grained, equigranular, dark green, moderately to strongly magnetic, homogenous pyroxenite composed of 95% brown-green pyroxenes, trace to 5% plagioclase (locally white wisps). This unit contains trace to 3% clustered pyrrhotite-pyrite (trace chalcopyrite). The upper and lower contacts of this minor unit are sharp at 70 and 75 degrees to ca, respectively. **Minor Interval** 41.94 42.60 **4 Anorthosite / Anorthositic Gabbro** **Minor Interval** 43.04 43.94 **4 Anorthosite / Anorthositic Gabbro** **Structure** 41.16 41.17 UC Upper Contact sharp **Structure** 41.93 41.94 LC Lower Contact sharp

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00316	41.14	41.44	0.30	0.03	0.03	0.01	0.20	0.02	0.04	0.01	0.25
PG00317	41.44	41.94	0.50	0.03	0.03	0.01	0.50	0.01	0.01	0.01	0.25
PG00318	41.94	42.60	0.66	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25
PG00319	42.60	43.04	0.44	0.03	0.03	0.01	0.11	0.01	0.01	0.01	0.25
PG00320	43.04	43.94	0.90	0.03	0.03	0.01	0.05	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
43.94	50.84	**6d Pyroxenite**

Medium grained, equigranular, dark green, moderately to strongly magnetic, homogenous pyroxenite composed of 98% dark brown-green pyroxenes and trace plagioclase. Small (<3cm) fragments of non to partially assimilated anorthosite are visible throughout the unit.

This unit contains trace to locally 10% disseminated, blebby and clustered pyrrhotite-pyrite with minor chalcopyrite. Brighter flecks within the pyrrhotite clusters may be pentlandite exsolution?

Clusters of 10% sulphide produced conductivity responses of 40.1S (at 44.50m), 116.2S (at 47.50m) and 103.0S (at 48.00m).

The upper and lower contacts of this minor unit are sharp at 90 and 83 degrees to ca, respectively.

Minor Interval

48.40 48.62 **4 Anorthosite / Anorthositic Gabbro**

Minor Interval

49.04 49.27 **4 Anorthosite / Anorthositic Gabbro**

Minor Interval

49.50 50.12 **4 Anorthosite / Anorthositic Gabbro**

Minor Interval

50.38 50.84 **4 Anorthosite / Anorthositic Gabbro**

Mineralization 43.94 50.84 3.0% Po Pyrrhotite
D Disseminated
also minor blebby and clustered

Mineralization 43.94 50.84 2.0% Py Pyrite
D Disseminated
also minor blebby and clustered

Structure 43.94 43.95 UC Upper Contact
sharp

Structure 50.83 50.84 LC Lower Contact
Gradational contact from UM to norite

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00321	43.94	44.44	0.50	0.03	0.03	0.03	1.36	0.01	0.01	0.01	0.25
PG00322	44.44	44.94	0.50	0.12	0.09	0.03	4.61	0.01	0.01	0.01	0.25
PG00323	44.94	45.94	1.00	0.03	0.03	0.01	1.27	0.01	0.01	0.01	0.25
PG00324	45.94	46.44	0.50	0.03	0.03	0.01	0.72	0.01	0.01	0.01	0.25
PG00326	46.44	46.94	0.50	0.03	0.03	0.01	1.38	0.01	0.01	0.01	0.25
PG00327	46.94	47.94	1.00	0.03	0.03	0.01	0.92	0.01	0.01	0.01	0.25
PG00328	47.94	48.44	0.50	0.03	0.03	0.01	2.53	0.01	0.01	0.01	0.25
PG00329	48.44	49.44	1.00	0.03	0.03	0.01	0.25	0.01	0.01	0.01	0.25
PG00330	49.44	50.44	1.00	0.03	0.03	0.01	0.15	0.01	0.01	0.01	0.25
PG00331	50.44	50.84	0.40	0.03	0.03	0.01	0.16	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
50.84	54.15	**10f Mafic dykes** Gray-green, medium grained, non to weakly magnetic, homogeneous mafic dyke. Unit is unmineralized. Cm scale fragments of anorthosite are locally observed. Upper and lower are characterized by chill margins with both averaging 83 degrees to ca. **Structure** 50.84 50.85 UC Upper Contact diffuse; chill margin **Structure** 51.24 51.25 S1 1st Foliation **Structure** 54.14 54.15 LC Lower Contact chill margin
54.15	65.15	**4 Anorthosite / Anorthositic Gabbro** Medium to locally coarse anorthosite to anorthositic gabbro. Locally mottled texture; locally gabbroic affinity. Dark gray/black pyroxenes and white plagioclase; weakly to moderately foliated. Unit is unmineralized and non magnetic. Upper and lower contacts are sharp at 83 and 78 degrees to ca, respectively. **Minor Interval** 61.30 61.43 **6f Norite** Medium grained, equigranular, massive, non magnetic, dark gray norite composed of 75% dark gray to black pyroxenes and 25% white plagioclase. The unit is unmineralized. The upper and lower contacts of the unit are sharp at 43 and 68 respectively. **Structure** 54.15 54.16 UC Upper Contact sharp **Structure** 57.30 57.31 S1 1st Foliation **Structure** 62.64 62.65 S1 1st Foliation **Structure** 65.14 65.15 LC Lower Contact sharp

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00332	50.84	51.84	1.00	0.03	0.03	0.01	0.20	0.01	0.01	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
65.15	66.45	**6c Olkocrystic Pyroxenite** Dark grey, strongly magnetic, massive to weakly foliated olivine pyroxenite composed of 95% pyroxenes (as fine grained black groundmass, medium grained brown bronzite crystals and as cm scale light grey porphyroblasts), and 5% black serpentine veinlets. Veinlets criss cross the unit but are not overly abundant. Porphyroblastic pyroxenes are generally poorly developed, function of retrogression? Disseminated magnetite is present throughout the unit. This unit contains rare trace disseminated pyrrhotite. Upper and lower contacts are sharp at 78 and 65 degrees to ca, respectively. The lower contact is characterized by a serpentine filled gash. **Alteration** 65.15 66.45 SERP Serpentine V Vein W Weak **Structure** 65.15 65.16 UC Upper Contact sharp **Structure** 66.44 66.45 LC Lower Contact sharp with serpentine filled tension gash												

Detailed Lithology

From	To	Lithology
66.45	72.75	**4 Anorthosite / Anorthositic Gabbro** Medium to locally coarse anorthosite to anorthositic gabbro. Unit is progressively more sausseritized near the lower contact with ultramafic. Dark gray/black pyroxenes and white plagioclase; weakly to moderately foliated. Unit is unmineralized and non magnetic. Upper and lower contact are sharp at 58 and 76 degrees to ca, respectively. Decimeter scale unmineralized gabbroic unit observed at 69.50m. **Minor Interval** 67.80 68.31 **7a Gabbronorite** Medium grained, non magnetic, weakly foliated leuco-gabbronorite with 30-35% dark brown gray pyroxenes and 65-70% altered plagioclase giving the unit an overall greenish-gray colour. Unit is unmineralized. Upper contact is sharp and syn-parallel to ca. Lower contact is sharp at 48 degrees to ca. **Minor Interval** 70.70 70.96 **6c Oikocrystic Pyroxenite** Dark grey, strongly magnetic, massive to weakly foliated olivine pyroxenite composed of 95% pyroxenes (as fine grained black groundmass, medium grained brown bronzite crystals and as cm scale light grey porphyroblasts), and black serpentine veinlets. Veinlets criss cross the unit but are not overly abundant. Porphyroblastic pyroxenes are generally poorly developed. Disseminated magnetite is present throughout the unit. This unit is unmineralized. Upper and lower contacts are sharp at 75 and 78 degrees to ca, respectively. **Structure** 66.45 66.46 UC Upper Contact sharp **Structure** 66.90 67.30 S1 1st Foliation parallel to ca **Structure** 72.74 72.75 LC Lower Contact sharp; saussertized

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00333	71.50	72.75	1.25	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
72.75	78.95	**6b Peridotite**

Fine to medium grained, non to weakly foliated, non to locally moderately magnetic peridotite. Unit is dark purplish gray to locally black. Unit interfingers anorthosite as evident by repeated minor units of anorthosite. Nearer to lower contact, peridotite is more greenish in appearance due to more advanced assimilation of anorthositic material? Magnetite is locally visible as fine black grains.

Overall trace mineralization only but locally, decimeter scale zones of up to 1% po, py and trace cpy occuring as finely disseminated sulphide and in thin mm scale veinlets cutting the peridotite. Minor mineralization was observed in partially assimilated anorthositic material at 77.8m.

Pale alteration veinlets (talc?) are also observed.

Upper and lower contacts are sharp at 72 and 81 degrees to ca, respectively.

Minor Interval

73.60 74.35 **4 Anorthosite / Anorthositic Gabbro**

Minor Interval

76.03 76.98 **4 Anorthosite / Anorthositic Gabbro**

Minor Interval

77.78 78.42 **4 Anorthosite / Anorthositic Gabbro**

Mineralization	72.75	78.95	0.5%	Po	Pyrrhotite
				D	Disseminated
Mineralization	72.75	78.95	0.5%	Py	Pyrite
				D	Disseminated
Structure	72.75	72.76	UC	Upper Contact sharp	
Structure	75.30	75.31	S1	1st Foliation	
Structure	78.94	78.95	LC	Lower Contact sharp	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00334	72.75	73.15	0.40	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25
PG00335	73.15	74.45	1.30	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25
PG00336	74.45	75.00	0.55	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25
PG00337	75.00	75.50	0.50	0.03	0.03	0.01	0.21	0.01	0.01	0.01	0.25
PG00338	75.50	76.05	0.55	0.03	0.03	0.01	0.43	0.02	0.05	0.01	0.25
PG00339	76.05	77.40	1.35	0.03	0.03	0.01	0.09	0.01	0.01	0.01	0.25
PG00340	77.40	77.80	0.40	0.03	0.03	0.01	0.51	0.02	0.02	0.01	0.25
PG00341	77.80	78.00	0.20	0.03	0.03	0.01	0.21	0.01	0.02	0.01	0.25
PG00342	78.00	78.50	0.50	0.03	0.03	0.01	0.20	0.01	0.02	0.01	0.25
PG00343	78.50	78.95	0.45	0.03	0.03	0.01	0.44	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
78.95	88.05	**4s Sausseritized/Tectonized Anorthosite**
		Minor Interval
		81.94 82.40 **4 Anorthosite / Anorthositic Gabbro**
		Minor Interval
		82.40 83.05 **10f Mafic dykes** Medium grained, non magnetic, chloritized, weakly folilated gabbroic unit. Unit has an overall greenish colour. Unit is unmineralized. Upper and lower contacts are sharp at 83 and 78 degrees to ca respectively. Lower contact defined by mm scale veinlet with dark black mineral (serpentine?).
88.05	92.19	**6f Norite** Fine to medium grained, weakly to moderately magnetic, weakly foliated, dark purplish-gray norite. Plagioclase content varies from 3-5% at the top to 70-75% near the middle. There is no sharp contact between the plagioclase poor and plagioclase rich portions. Grain size varies from fine at the top, to medium around the middle and back to fine near the lower contact. At 90.35m a small (cm diameter), sub-rounded fragment of mafic volcanic/intrusive is observed within the leucocratic norite matrix The unit is contains 0.5% to locally 1% disseminated, blebby and veinlet hosted pyrite-pyrrhotite. **Mineralization** 88.05 92.19 1.0% Po Pyrrhotite D Disseminated minor veinlets **Mineralization** 88.05 92.19 1.0% Py Pyrite D Disseminated minor veinlets **Structure** 88.05 88.06 UC Upper Contact sharp **Structure** 92.18 92.19 LC Lower Contact moderately diffuse

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00344	78.95	80.40	1.45	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25
PG00345	87.05	88.05	1.00	0.03	0.03	0.01	0.08	0.01	0.01	0.01	0.25
PG00346	88.05	89.05	1.00	0.03	0.03	0.01	0.27	0.01	0.03	0.01	0.25
PG00347	89.05	90.05	1.00	0.03	0.03	0.01	0.26	0.01	0.02	0.01	0.25
PG00348	90.05	91.05	1.00	0.03	0.03	0.01	0.23	0.01	0.01	0.01	0.25
PG00349	91.05	92.19	1.14	0.03	0.03	0.01	0.25	0.01	0.01	0.01	0.25

Detailed Lithology				Assay Data											
From	To		Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
92.19	94.34	4	**Anorthosite / Anorthositic Gabbro**	PG00350	92.19	93.19	1.00	0.03	0.03	0.01	0.21	0.01	0.02	0.03	0.25
				PG00352	93.19	94.34	1.15	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25
			Minor Interval												
			92.19 93.17 **10f Mafic dykes** Medium grained, non magnetic, chloritized, weakly folilated gabbroic unit. Unit has an overall greenish colour. Unit is unmineralized. Upper with 6f is moderately diffuse at 78 degrees to ca. Lower contact is sharp at 85 degrees to ca.												
			Structure 94.14 94.15 S1 1st Foliation												
			Structure 94.33 94.34 LC Lower Contact sharp												
92.19	94.34	4	**Anorthosite / Anorthositic Gabbro**	PG00350	92.19	93.19	1.00	0.03	0.03	0.01	0.21	0.01	0.02	0.03	0.25
				PG00352	93.19	94.34	1.15	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25
			Minor Interval												
			92.19 93.17 **10f Mafic dykes** Medium grained, non magnetic, chloritized, weakly folilated gabbroic unit. Unit has an overall greenish colour. Unit is unmineralized. Upper with 6f is moderately diffuse at 78 degrees to ca. Lower contact is sharp at 85 degrees to ca.												
			Structure 94.14 94.15 S1 1st Foliation												
			Structure 94.33 94.34 LC Lower Contact sharp												

Detailed Lithology

From	To	Lithology
94.34	122.24	**6b Peridotite**

Fine to locally medium grained, locally non to locally strongly magnetic, weakly foliated peridotite. Relic olivine visible near the top of the unit and in relatively unaltered, medium grained horizons. Unit is progressively more altered (talc and serpentine) towards the middle and lower portions. Small, black magnetite crystals are visible mainly in the less altered portions. Unit is non magnetic and soft wihtin the most pervasively altered portions. Unit colour varies from dark purplish-gray (less altered) to greenish-gray (more altered).

The lower contact zone of the unit (from 121-122.24m) is defined by a weakly assimilated (nearer to 121m) to contact breccia-like anorthosite to altered ultramafic. The contact breccia-like portion consists of a gradational change from anorthosite dominated with minor interstitial ultramafic matrix to ultramafic dominated with minor subrounded anorthosite fragment. The terminal lower contact with the next major anorthosite unit is sharp at 71 degrees to ca.

Unit is mineralized throughout. Overall 3-5% disseminated and stringer hosted pyrrhotite, pyrite and minor chacopyrite. Local intervals are more sulphide rich: From 95.60-95.70m, 8-10% disseminated and stringer hosted po-py with trace cpy; from 96.85-97.50m, 5-8% disseminated and stringer hosted po-py with minor cpy; from 111.10-112.44m, 8-10% stringer hosted and disseminated po, py and minor cpy; from 114.04-114.84m, 13-15% stringer hosted and disseminated po, py and minor cpy; from 115.14-115.79m, 8-10% stringer hosted and dissminated po, py and minor cpy. The previous intervals overlap the most altered portions of the unit.

Upper and lower contacts with anorthosite are sharp at 83 and 71 degrees to ca, respectively.

Minor Interval

112.53 113.99 **4 Anorthosite / Anorthositic Gabbro**

Mineralization	94.34	118.20	1.0%	Cpy	Chalcopyrite
				BB	Blebby
				overall mineralization; also in stringers	
Mineralization	94.34	118.20	1.0%	Py	Pyrite
				D	Disseminated
				overall mineralization; also blebby and stringer hosted	
Mineralization	94.34	118.20	5.0%	Po	Pyrrhotite
				D	Disseminated
				overall mineralization; aqlso blebby and stringer hosted	
Mineralization	95.60	95.70	10.0%	Po	Pyrrhotite
				STR	Stringers
Mineralization	96.85	97.50	5.0%	Po	Pyrrhotite
				STR	Stringers

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00353	94.34	95.34	1.00	0.09	0.12	0.01	2.24	0.02	0.01	0.05	0.25
PG00354	95.34	95.84	0.50	0.12	0.38	0.02	1.78	0.02	0.03	0.03	0.25
PG00355	95.84	96.04	0.20	0.28	0.03	0.04	5.52	0.05	0.01	0.02	0.25
PG00356	96.04	96.34	0.30	0.14	0.09	0.01	2.66	0.02	0.01	0.01	0.25
PG00357	96.34	97.00	0.66	0.16	0.07	0.02	2.76	0.03	0.02	0.02	0.25
PG00358	97.00	97.20	0.20	0.40	0.21	0.05	7.09	0.05	0.04	0.02	0.25
PG00359	97.20	97.70	0.50	0.15	0.08	0.02	4.46	0.03	0.01	0.02	0.25
PG00360	97.70	98.70	1.00	0.06	0.06	0.01	1.17	0.01	0.01	0.01	0.25
PG00361	98.70	99.20	0.50	0.06	0.03	0.01	1.17	0.01	0.01	0.01	0.25
PG00362	99.20	99.70	0.50	0.13	0.03	0.03	2.76	0.01	0.01	0.01	0.25
PG00363	99.70	100.70	1.00	0.07	0.03	0.02	1.27	0.01	0.01	0.01	0.25
PG00364	100.70	101.70	1.00	0.10	0.06	0.01	2.04	0.01	0.01	0.02	0.25
PG00365	101.70	102.70	1.00	0.13	0.07	0.03	2.19	0.02	0.01	0.02	0.25
PG00366	102.70	103.70	1.00	0.13	0.03	0.01	2.09	0.01	0.01	0.01	0.25
PG00367	103.70	104.70	1.00	0.11	0.06	0.01	1.96	0.01	0.01	0.01	0.25
PG00368	104.70	105.70	1.00	0.10	0.06	0.02	1.90	0.02	0.01	0.02	0.25
PG00369	105.70	106.70	1.00	0.15	0.09	0.01	2.71	0.02	0.01	0.01	0.25
PG00370	106.70	107.70	1.00	0.10	0.06	0.01	1.49	0.02	0.01	0.01	0.25
PG00371	107.70	108.70	1.00	0.07	0.06	0.01	1.35	0.01	0.01	0.01	0.25
PG00372	108.70	109.70	1.00	0.09	0.08	0.01	1.67	0.01	0.01	0.01	0.25
PG00373	109.70	110.70	1.00	0.13	0.10	0.02	2.77	0.02	0.01	0.02	0.25
PG00374	110.70	111.00	0.30	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25
PG00375	111.00	112.50	1.50	0.29	0.14	0.04	4.86	0.06	0.02	0.04	0.25
PG00376	112.50	114.00	1.50	0.03	0.03	0.01	0.04	0.01	0.01	0.01	0.25
PG00377	114.00	114.50	0.50	0.52	0.06	0.06	10.80	0.10	0.04	0.05	0.25
PG00378	114.50	114.90	0.40	0.38	0.42	0.04	7.44	0.09	0.02	0.03	0.25
PG00379	114.90	115.10	0.20	0.11	0.03	0.01	2.33	0.02	0.01	0.06	0.25
PG00380	115.10	115.40	0.30	0.69	0.87	0.09	13.60	0.11	0.05	0.03	0.60
PG00382	115.40	115.70	0.30	0.30	0.05	0.04	5.98	0.07	0.04	0.01	0.25
PG00383	115.70	116.70	1.00	0.09	0.03	0.01	1.95	0.03	0.03	0.01	0.25
PG00384	116.70	117.70	1.00	0.06	0.03	0.02	1.20	0.01	0.01	0.01	0.25
PG00385	117.70	118.20	0.50	0.26	0.17	0.05	6.00	0.07	0.05	0.03	0.25
PG00386	118.20	118.50	0.30	0.27	0.20	0.04	5.44	0.13	0.20	0.03	0.25
PG00387	118.50	118.80	0.30	0.35	0.56	0.06	6.99	0.06	0.02	0.01	0.25
PG00388	118.80	119.20	0.40	0.12	0.06	0.01	2.13	0.02	0.02	0.02	0.25
PG00389	119.20	119.80	0.60	0.57	0.13	0.07	10.20	0.10	0.03	0.02	0.25
PG00390	119.80	121.00	1.20	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25
PG00391	121.00	122.23	1.23	0.03	0.03	0.01	0.61	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology					
		Mineralization	111.10	112.44	10.0%	Po	Pyrrhotite
						STR	Stringers
						tiny bright flecks--pentlandite exsolution?	
		Mineralization	111.10	112.44	2.0%	Py	Pyrite
						STR	Stringers
		Mineralization	111.10	112.44	0.5%	Cpy	Chalcopyrite
						STR	Stringers
		Mineralization	114.04	114.84	1.0%	Cpy	Chalcopyrite
						STR	Stringers
		Mineralization	114.04	114.84	2.0%	Py	Pyrite
						STR	Stringers
		Mineralization	114.04	114.84	13.0%	Po	Pyrrhotite
						STR	Stringers
						also as disseminated	
		Mineralization	115.14	115.79	2.0%	Py	Pyrite
						STR	Stringers
		Mineralization	115.14	115.79	8.0%	Po	Pyrrhotite
						STR	Stringers
		Mineralization	115.14	115.79	1.0%	Cpy	Chalcopyrite
						STR	Stringers
		Mineralization	117.70	118.44	10.0%	Po	Pyrrhotite
						STR	Stringers
		Mineralization	117.70	118.44	1.0%	Cpy	Chalcopyrite
						STR	Stringers
		Mineralization	117.70	118.44	2.0%	Py	Pyrite
						STR	Stringers
		Mineralization	118.55	118.80	2.0%	Py	Pyrite
						STR	Stringers
						also as disseminated	
		Mineralization	118.55	118.80	15.0%	Po	Pyrrhotite
						STR	Stringers
						also as disseminated	
		Mineralization	118.55	118.80	1.0%	Cpy	Chalcopyrite
						STR	Stringers
						also as disseminated	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00392	122.23	123.28	1.05	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology				
		Mineralization	119.33	119.83	15.0%	Po Pyrrhotite STR Stringers also as disseminated
		Mineralization	119.33	119.83	2.0%	Py Pyrite STR Stringers also as disseminated
		Mineralization	119.33	119.83	1.0%	Cpy Chalcopyrite STR Stringers also as disseminated
		Alteration	94.34	118.20		SERP Serpentine V Vein M Moderate not including unit 4 minor
		Alteration	94.34	94.40		TL Talc BN Banded S Strong
		Alteration	95.90	118.20		TL Talc BN Banded M Moderate not including unit 4 minor
		Structure	94.34	94.35		UC Upper Contact sharp
		Structure	120.55	120.56		S1 1st Foliation
		Structure	122.23	122.24		LC Lower Contact sharp; see comments for major unit

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
122.24	157.67	**4 Anorthosite / Anorthositic Gabbro**

Minor Interval

123.28 124.31 **6e Ultramafic Schist**
Fine grained, strongly foliated, altered ultramafic schist. Alteration is mainly patchy talc/serpentine. Unit is moderately magnetic.

Stringer hosted and disseminated 3-5% po, 2% py and minor cpy over interval.

Upper and lower contacts are sharp at 89 and 88 degrees to ca, respectively.

Minor Interval

124.92 125.25 **6e Ultramafic Schist**
Fine grained, strongly foliated, altered ultramafic schist. Alteration is mainly patchy talc/serpentine. Unit is moderately to strongly magnetic.

Stringer hosted and disseminated 5-8% po, 2% py and minor cpy over interval.

Upper and lower contacts are sharp at 87 and 88 degrees to ca, respectively.

Minor Interval

127.76 128.40 **6e Ultramafic Schist**
Fine grained, strongly foliated, altered ultramafic schist. Alteration is mainly patchy talc/serpentine. Unit is weakly to moderately magnetic.

Stringer hosted and disseminated 2% py, 1% po and minor cpy over interval.

Upper and lower contacts are sharp at 81 and 89 degrees to ca, respectively.

Minor Interval

154.38 154.75 **6f Norite**
Fine grained, moderately foliated, altered norite. Unit is non magnetitic. Bronzy opx crystals are visible. Fragment of anorthosite (5cm length) is observed within the unit.

Unit has trace pyrite.

Upper and lower contacts are sharp at 81 and 90 degrees to ca, respectively.

Mineralization 126.44 126.49 1.0% Py Pyrite
STR Stringers

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00393	123.28	124.31	1.03	0.14	0.03	0.02	2.81	0.01	0.01	0.01	0.25
PG00394	124.31	124.92	0.61	0.03	0.03	0.01	0.29	0.01	0.03	0.01	0.25
PG00395	124.92	125.35	0.43	0.38	0.51	0.05	5.98	0.08	0.05	0.02	0.25
PG00396	125.35	126.05	0.70	0.03	0.03	0.01	0.08	0.01	0.01	0.01	0.25
PG00397	126.76	127.76	1.00	0.03	0.03	0.01	0.30	0.01	0.01	0.01	0.25
PG00398	127.76	128.40	0.64	0.06	0.06	0.02	1.34	0.01	0.05	0.01	0.25
PG00399	128.40	129.12	0.72	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25

Detailed Lithology								Assay Data											
From	To	Lithology						Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
							in 6e stringer												
		Mineralization	126.58	126.62	1.0%	Py D	Pyrite Disseminated in 6e stringer												
		Mineralization	127.47	127.54	5.0%	Py STR	Pyrite Stringers in 6e stringer												
		Mineralization	143.94	146.08	2.0%	Py STR	Pyrite Stringers in 6e stringer												
		Structure	122.24	122.25	UC	Upper Contact sharp													
		Structure	136.00	136.01	S1	1st Foliation													
		Structure	156.87	156.88	S1	1st Foliation													
		Structure	157.66	157.67	LC	Lower Contact sharp													
157.67	159.30	**10f Mafic dykes** Fine to locally medium grained, non magnetic, moderately to strongly foliated mafic intrusive. Unit has trace pyrite mineralization. Upper and lower contacts are sharp at 71 and 79 degrees to ca, respectively.																	
		Structure	157.67	157.68	UC	Upper Contact sharp													
		Structure	158.97	158.97	S1	1st Foliation													
		Structure	159.29	159.30	LC	Lower Contact sharp													
159.30	159.40	**4 Anorthosite / Anorthositic Gabbro**																	

Espedalen - Analysis

Hole Number: ES2005-45

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00311	38.59	39.59	1.00	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.60																
PG00312	39.59	39.79	0.20	0.03	0.03	0.01	0.19	0.01	0.01	0.01	0.25																
PG00313	39.79	39.99	0.20	0.03	0.03	0.01	0.57	0.01	0.01	0.01	0.25																
PG00314	39.99	40.19	0.20	0.03	0.03	0.01	1.22	0.01	0.01	0.01	0.25																
PG00315	40.19	41.14	0.95	0.03	0.03	0.01	0.28	0.01	0.01	0.01	0.25																
PG00316	41.14	41.44	0.30	0.03	0.03	0.01	0.20	0.01	0.02	0.04	0.25																
PG00317	41.44	41.94	0.50	0.03	0.03	0.01	0.50	0.01	0.01	0.01	0.25																
PG00318	41.94	42.60	0.66	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25																
PG00319	42.60	43.04	0.44	0.03	0.03	0.01	0.11	0.01	0.01	0.01	0.25																
PG00320	43.04	43.94	0.90	0.03	0.03	0.01	0.05	0.01	0.01	0.01	0.25																
PG00321	43.94	44.44	0.50	0.03	0.03	0.03	1.36	0.01	0.01	0.01	0.25																
PG00322	44.44	44.94	0.50	0.12	0.09	0.03	4.61	0.01	0.01	0.01	0.25																
PG00323	44.94	45.94	1.00	0.03	0.03	0.01	1.27	0.01	0.01	0.01	0.25																
PG00324	45.94	46.44	0.50	0.03	0.03	0.01	0.72	0.01	0.01	0.01	0.25																
PG00326	46.44	46.94	0.50	0.03	0.03	0.01	1.38	0.01	0.01	0.01	0.25																
PG00327	46.94	47.94	1.00	0.03	0.03	0.01	0.92	0.01	0.01	0.01	0.25																
PG00328	47.94	48.44	0.50	0.03	0.03	0.01	2.53	0.01	0.01	0.01	0.25																
PG00329	48.44	49.44	1.00	0.03	0.03	0.01	0.25	0.01	0.01	0.01	0.25																
PG00330	49.44	50.44	1.00	0.03	0.03	0.01	0.15	0.01	0.01	0.01	0.25																
PG00331	50.44	50.84	0.40	0.03	0.03	0.01	0.16	0.01	0.01	0.01	0.25																
PG00332	50.84	51.84	1.00	0.03	0.03	0.01	0.20	0.01	0.01	0.01	0.25																
PG00333	71.50	72.75	1.25	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25																
PG00334	72.75	73.15	0.40	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25																
PG00335	73.15	74.45	1.30	0.03	0.03	0.01	0.03	0.01	0.01	0.01	0.25																
PG00336	74.45	75.00	0.55	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25																
PG00337	75.00	75.50	0.50	0.03	0.03	0.01	0.21	0.01	0.01	0.01	0.25																
PG00338	75.50	76.05	0.55	0.03	0.03	0.01	0.43	0.01	0.02	0.05	0.25																
PG00339	76.05	77.40	1.35	0.03	0.03	0.01	0.09	0.01	0.01	0.01	0.25																
PG00340	77.40	77.80	0.40	0.03	0.03	0.01	0.51	0.01	0.02	0.02	0.25																

Espedalen - Analysis

Hole Number: ES2005-45

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00341	77.80	78.00	0.20	0.03	0.03	0.01	0.21	0.01	0.01	0.02	0.25																
PG00342	78.00	78.50	0.50	0.03	0.03	0.01	0.20	0.01	0.01	0.02	0.25																
PG00343	78.50	78.95	0.45	0.03	0.03	0.01	0.44	0.01	0.01	0.01	0.25																
PG00344	78.95	80.40	1.45	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25																
PG00345	87.05	88.05	1.00	0.03	0.03	0.01	0.08	0.01	0.01	0.01	0.25																
PG00346	88.05	89.05	1.00	0.03	0.03	0.01	0.27	0.01	0.01	0.03	0.25																
PG00347	89.05	90.05	1.00	0.03	0.03	0.01	0.26	0.01	0.01	0.02	0.25																
PG00348	90.05	91.05	1.00	0.03	0.03	0.01	0.23	0.01	0.01	0.01	0.25																
PG00349	91.05	92.19	1.14	0.03	0.03	0.01	0.25	0.01	0.01	0.01	0.25																
PG00350	92.19	93.19	1.00	0.03	0.03	0.01	0.21	0.03	0.01	0.02	0.25																
PG00352	93.19	94.34	1.15	0.03	0.03	0.01	0.07	0.01	0.01	0.01	0.25																
PG00353	94.34	95.34	1.00	0.09	0.12	0.01	2.24	0.05	0.02	0.01	0.25																
PG00354	95.34	95.84	0.50	0.12	0.38	0.02	1.78	0.03	0.02	0.03	0.25																
PG00355	95.84	96.04	0.20	0.28	0.03	0.04	5.52	0.02	0.05	0.01	0.25																
PG00356	96.04	96.34	0.30	0.14	0.09	0.01	2.66	0.01	0.02	0.01	0.25																
PG00357	96.34	97.00	0.66	0.16	0.07	0.02	2.76	0.02	0.03	0.02	0.25																
PG00358	97.00	97.20	0.20	0.40	0.21	0.05	7.09	0.02	0.05	0.04	0.25																
PG00359	97.20	97.70	0.50	0.15	0.08	0.02	4.46	0.02	0.03	0.01	0.25																
PG00360	97.70	98.70	1.00	0.06	0.06	0.01	1.17	0.01	0.01	0.01	0.25																
PG00361	98.70	99.20	0.50	0.06	0.03	0.01	1.17	0.01	0.01	0.01	0.25																
PG00362	99.20	99.70	0.50	0.13	0.03	0.03	2.76	0.01	0.01	0.01	0.25																
PG00363	99.70	100.70	1.00	0.07	0.03	0.02	1.27	0.01	0.01	0.01	0.25																
PG00364	100.70	101.70	1.00	0.10	0.06	0.01	2.04	0.02	0.01	0.01	0.25																
PG00365	101.70	102.70	1.00	0.13	0.07	0.03	2.19	0.02	0.02	0.01	0.25																
PG00366	102.70	103.70	1.00	0.13	0.03	0.01	2.09	0.01	0.01	0.01	0.25																
PG00367	103.70	104.70	1.00	0.11	0.06	0.01	1.96	0.01	0.01	0.01	0.25																
PG00368	104.70	105.70	1.00	0.10	0.06	0.02	1.90	0.02	0.02	0.01	0.25																
PG00369	105.70	106.70	1.00	0.15	0.09	0.01	2.71	0.01	0.02	0.01	0.25																
PG00370	106.70	107.70	1.00	0.10	0.06	0.01	1.49	0.01	0.02	0.01	0.25																

Espedalen - Analysis

Hole Number: ES2005-45

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00371	107.70	108.70	1.00	0.07	0.06	0.01	1.35	0.01	0.01	0.01	0.25																
PG00372	108.70	109.70	1.00	0.09	0.08	0.01	1.67	0.01	0.01	0.01	0.25																
PG00373	109.70	110.70	1.00	0.13	0.10	0.02	2.77	0.02	0.02	0.01	0.25																
PG00374	110.70	111.00	0.30	0.03	0.03	0.01	0.12	0.01	0.01	0.01	0.25																
PG00375	111.00	112.50	1.50	0.29	0.14	0.04	4.86	0.04	0.06	0.02	0.25																
PG00376	112.50	114.00	1.50	0.03	0.03	0.01	0.04	0.01	0.01	0.01	0.25																
PG00377	114.00	114.50	0.50	0.52	0.06	0.06	10.80	0.05	0.10	0.04	0.25																
PG00378	114.50	114.90	0.40	0.38	0.42	0.04	7.44	0.03	0.09	0.02	0.25																
PG00379	114.90	115.10	0.20	0.11	0.03	0.01	2.33	0.06	0.02	0.01	0.25																
PG00380	115.10	115.40	0.30	0.69	0.87	0.09	13.60	0.03	0.11	0.05	0.60																
PG00382	115.40	115.70	0.30	0.30	0.05	0.04	5.98	0.01	0.07	0.04	0.25																
PG00383	115.70	116.70	1.00	0.09	0.03	0.01	1.95	0.01	0.03	0.03	0.25																
PG00384	116.70	117.70	1.00	0.06	0.03	0.02	1.20	0.01	0.01	0.01	0.25																
PG00385	117.70	118.20	0.50	0.26	0.17	0.05	6.00	0.03	0.07	0.05	0.25																
PG00386	118.20	118.50	0.30	0.27	0.20	0.04	5.44	0.03	0.13	0.20	0.25																
PG00387	118.50	118.80	0.30	0.35	0.56	0.06	6.99	0.01	0.06	0.02	0.25																
PG00388	118.80	119.20	0.40	0.12	0.06	0.01	2.13	0.02	0.02	0.02	0.25																
PG00389	119.20	119.80	0.60	0.57	0.13	0.07	10.20	0.02	0.10	0.03	0.25																
PG00390	119.80	121.00	1.20	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																
PG00391	121.00	122.23	1.23	0.03	0.03	0.01	0.61	0.01	0.01	0.01	0.25																
PG00392	122.23	123.28	1.05	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.25																
PG00393	123.28	124.31	1.03	0.14	0.03	0.02	2.81	0.01	0.01	0.01	0.25																
PG00394	124.31	124.92	0.61	0.03	0.03	0.01	0.29	0.01	0.01	0.03	0.25																
PG00395	124.92	125.35	0.43	0.38	0.51	0.05	5.98	0.02	0.08	0.05	0.25																
PG00396	125.35	126.05	0.70	0.03	0.03	0.01	0.08	0.01	0.01	0.01	0.25																
PG00397	126.76	127.76	1.00	0.03	0.03	0.01	0.30	0.01	0.01	0.01	0.25																
PG00398	127.76	128.40	0.64	0.06	0.06	0.02	1.34	0.01	0.01	0.05	0.25																
PG00399	128.40	129.12	0.72	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-45

Depth	Conductivity (Siemens)	COMMENTS
44.50	40.10	Uncut core
47.50	116.20	Uncut core
48.00	103.00	Uncut core
95.65	479.10	Uncut core
96.90	101.20	Uncut core
104.65	325.10	Uncut core
110.30	160.90	Uncut core
111.70	286.70	Uncut core
111.80	325.60	Uncut core
112.23	505.60	Uncut core
114.10	999.00	C=1455S, Uncut core
114.30	999.00	C=2798S, Uncut core
114.75	647.80	Uncut core
115.20	999.00	C=1015S, Uncut core
115.41	999.00	C=1074S, Uncut core
118.00	549.70	Uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-45

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
8.00	0.16	
9.00	0.10	
10.00	0.14	
11.00	0.09	
12.00	0.08	
13.00	0.03	
14.00	0.06	
15.00	0.03	
16.00	0.05	
17.00	0.04	
18.00	0.08	
19.00	0.25	
20.00	0.08	
21.00	0.13	
22.00	0.18	
23.00	0.08	
24.00	0.10	
25.00	0.09	
26.00	0.07	
27.00	0.25	
28.00	0.29	
29.00	0.28	
30.00	0.31	
31.00	0.11	
32.00	0.05	
33.00	0.20	
34.00	0.12	
35.00	0.23	
36.00	0.48	
37.00	0.07	
38.00	0.13	
39.00	0.08	
40.00	0.46	
41.00	3.42	
42.00	0.08	
43.00	4.20	
44.00	1.42	
45.00	10.50	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-45

46.00	11.10	
47.00	4.82	
48.00	23.30	
49.00	2.77	
50.00	0.20	
51.00	0.27	
52.00	0.05	
53.00	0.31	
54.00	0.14	
55.00	0.09	
56.00	0.08	
57.00	0.12	
58.00	0.20	
59.00	0.13	
60.00	0.10	
61.00	0.05	
62.00	0.35	
63.00	0.16	
64.00	5.36	
65.00	1.07	
66.00	0.21	
67.00	3.00	
68.00	0.38	
69.00	0.41	
70.00	0.65	
71.00	0.34	
72.00	0.41	
73.00	7.15	
74.00	0.70	
75.00	1.05	
76.00	1.65	
77.00	0.23	
78.00	0.30	
79.00	0.39	
80.00	0.28	
81.00	0.24	
82.00	0.08	
83.00	0.06	
84.00	0.36	
85.00	0.06	
86.00	0.13	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-45
87.00	0.05	
88.00	0.48	
89.00	4.87	
90.00	0.61	
91.00	0.91	
92.00	1.90	
93.00	0.54	
94.00	0.24	
95.00	27.40	
96.00	79.50	
97.00	4.33	
98.00	0.65	
99.00	0.26	
100.00	1.17	
101.00	1.23	
102.00	1.58	
103.00	17.20	
104.00	63.70	
105.00	22.30	
106.00	41.10	
107.00	72.40	
108.00	20.40	
109.00	126.00	
110.00	37.20	
111.00	0.34	
112.00	1.70	
113.00	0.46	
114.00	0.86	
115.00	3.85	
116.00	9.18	
117.00	44.90	
118.00	10.40	
119.00	44.70	
120.00	51.10	
121.00	1.04	
122.00	0.36	
123.00	0.06	
124.00	1.63	
125.00	0.01	
126.00	0.11	
127.00	0.01	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-45

128.00	0.07	
129.00	0.09	
130.00	0.03	
131.00	0.15	
132.00	0.04	
133.00	0.02	
134.00	0.02	
135.00	0.02	
136.00	0.06	
137.00	0.01	
138.00	0.05	
139.00	0.04	
140.00	0.02	
141.00	0.02	
142.00	0.02	
143.00	0.01	
144.00	0.01	
145.00	0.02	
146.00	0.03	
147.00	0.01	
148.00	0.02	
149.00	0.05	
150.00	0.01	
151.00	0.01	
152.00	0.01	
153.00	0.01	
154.00	0.02	
155.00	0.01	
156.00	0.02	
157.00	0.02	
158.00	0.23	
159.00	0.23	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-45

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
0.00	7.50	100	100	N	CASING
7.50	10.00	25	100	N	
10.00	13.00	49	100	N	
13.00	16.00	8	90	N	
16.00	19.00	19	95	N	
19.00	22.00	28	95	N	
22.00	25.00	28	100	N	
25.00	28.00	34	85	N	
28.00	31.00	38	100	N	
31.00	34.00	49	100	N	
34.00	37.00	81	100	N	
37.00	40.00	48	100	N	
40.00	43.00	35	100	N	
43.00	46.00	70	100	N	
46.00	49.00	91	100	N	
49.00	52.00	61	100	N	
52.00	55.00	68	100	N	
55.00	58.00	52	100	N	
58.00	61.00	55	100	N	
61.00	64.00	65	100	N	
64.00	67.00	68	100	N	
67.00	70.00	67	100	N	
70.00	73.00	63	100	N	
73.00	76.00	47	100	N	
76.00	79.00	79	100	N	
79.00	82.00	91	100	N	
82.00	85.00	81	100	N	
85.00	88.00	88	100	N	
88.00	91.00	70	100	N	
91.00	94.00	89	100	N	
94.00	97.00	51	100	N	
97.00	100.00	60	100	N	
100.00	103.00	49	100	N	
103.00	106.00	46	100	N	
106.00	109.00	95	100	N	
109.00	112.00	69	100	N	
112.00	115.00	66	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-45

115.00	118.00	68	100	N	
118.00	121.00	62	100	N	
121.00	124.00	64	100	N	
124.00	127.00	37	98	N	
127.00	130.00	40	100	N	
130.00	133.00	71	100	N	
133.00	136.00	64	100	N	
136.00	139.00	70	100	N	
139.00	142.00	64	100	N	
142.00	145.00	54	100	N	
145.00	148.00	52	100	N	
148.00	151.00	49	100	N	
151.00	154.00	66	100	N	
154.00	157.00	72	100	N	
157.00	159.40	64	100	N	

Detailed Log

Hole Number: **ES2005-46**

Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	8/26/2005	Pulse EM Survey:	N			Logged by:	Trevor Blair
Date Completed:	8/31/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,802,224.28	Local Northing:	2289.33
UTM Easting:	533,418.83	Local Easting:	9591.18
Elevation: 1086.23			

Collar Dip:	-70.00
Collar Azimuth:	50.50
Length:	294.75

Comments

Purpose: Hole proposed to test the interpreted extension of the Stormyra zone, below a vertical depth of 150m, with a coincident magnetic body. This hole will also be used as a geophysical platform (BHEM) to search for conductors at depth along the interpreted Stormyra trend proximal to the limits of surface geophysics.

Result: The hole intersected a thick anorthosite body which was locally crosscut by dolerite dykes. A weakly mineralized (3% disseminated pyrrhotite) pendotite was intersected from 63.25m and 67.05m (3.80m inhole thickness). The magnetic anomaly was attributed to magnetite-bearing anorthosites downhole of 185m

Assays: No significant results were reported.

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Anorthositic terrain (Heim's rock suite 2a) intruded by narrow, locally mineralized, mafic to ultramafic bodies (Heim's rock suite 2b).

Detailed Lithology

From	To		Lithology
0.00	1.60	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
1.60	63.25	**4 Anorthosite / Anorthositic Gabbro** Fine grained, light green-grey, well foliated and lineated, heterogenous, non-magnetic anorthositic gabbro composed of 35-65% altered light green pyroxenes? (altered to chlorite?) and 35-65% plagioclase, with minor amounts of dark brown to black minerals(<5% biotite). More mafic and felsic horizons fluctuate on a dm scale, with more mafic hoizons appearing as a darker grey-green in colour and primarily composed of pyroxenes. These units at first glance appear as late pyroxenites, but are more likely a more pyroxenitic phase of the anorthositic complex. The unit contains trace local disseminated pyrrhotite and pyrite. **Minor Interval** 50.25 51.09 **6d Pyroxenite** Fine grained, pale green to grey-green, heterogenous, non-magnetic pyroxenite (altered to chlorite) dyklet containing cm to dm scale partially digested xenoliths of anorthositic gabbro. The unit conatins trace disseminated pyrrhotite-pyrite. The upper contact of this unit is irregular with uphole anorhositic gabbro (altered) and the lower contact is sharp at 80 degrees to the ca. **Minor Interval** 56.06 57.40 **6d Pyroxenite** As described from 50.25-51.09m. The unit contains trace to 2% cubic pyrite with pyrrhotite. The upper contact is sharp at 80 degrees to the ca and the lower contact is irregular. **Alteration** 6.00 15.50 HM Hematite P Pervasive M Moderate **Structure** 7.00 7.01 S1 1st Foliation **Structure** 17.90 17.91 S1 1st Foliation **Structure** 31.20 31.21 S1 1st Foliation **Structure** 45.85 45.86 S1 1st Foliation **Structure** 53.30 53.31 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00401	55.50	56.06	0.56	0.03	0.03	0.01	0.22	0.01	0.01	0.01	0.25
PG00402	56.06	56.60	0.54	0.03	0.03	0.02	1.68	0.06	0.25	0.02	0.25
PG00403	56.60	57.05	0.45	0.03	0.03	0.01	0.14	0.01	0.01	0.01	0.25
PG00404	57.05	57.40	0.35	0.10	0.06	0.01	1.59	0.09	0.15	0.03	0.25
PG00405	57.40	58.55	1.15	0.03	0.03	0.01	0.10	0.01	0.03	0.01	0.25
PG00406	62.50	63.25	0.75	0.03	0.03	0.01	0.17	0.01	0.02	0.01	0.25

Detailed Lithology

From	To	Lithology
63.25	67.05	**6b Peridotite** Fine grained, massive to moderately foliated, green-grey to blue-black peridotite composed of serpentine and pyroxenes. The upper and lower contacts of this unit are altered to a grey-green, well foliated (semi-parallel to 30 degrees to the ca), chlorite-rich ultramafic? Likely a reaction halo with the surrounding country rocks, drilled parallel, thus appearing larger and more extenive than the actual true thickness. Foliation planes are defined by dark green serpentine veinlets. This unit contains trace to 3% fine grained disseminated pyrrhotite, with localized mm to cm scale remobilized pyrrhotite-pyrite-chalcopyrite veinlets. The upper contact of this unit is sharp with partially digested anorthosite, but lost in broken core. The lower contact is also sharp but lost within sheared broken core (~40 degrees). **Mineralization** 63.25 67.05 3.0% Po Pyrrhotite D Disseminated Locally remobilized in mm scale veinlets. **Mineralization** 63.25 67.05 1.0% Py Pyrite FG Fine Grained **Mineralization** 63.25 67.05 0.5% Cpy Chalcopyrite D Disseminated
67.05	75.20	**4 Anorthosite / Anorthositic Gabbro** **Minor Interval** 73.40 75.20 **6d Pyroxenite** As described from 50.25m - 51.09m. This unit contains ~50% medium grained pyroxenite with 50% anorthositic gabbro. The lower contact contains trace to 1% finely disseminated pyrite and pyrrhotite, at approximately 50 degrees to the ca. **Structure** 69.50 69.51 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00407	63.25	64.25	1.00	0.18	0.15	0.03	3.47	0.05	0.13	0.01	0.25
PG00408	64.25	65.60	1.35	0.06	0.06	0.01	1.16	0.02	0.04	0.01	0.25
PG00409	65.60	67.05	1.45	0.05	0.03	0.01	0.85	0.02	0.04	0.01	0.25
PG00410	67.05	68.00	0.95	0.03	0.03	0.01	0.13	0.01	0.04	0.01	0.25

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
75.20	92.35	**8a Dolerite** Fine to medium grained, non-magnetic, white and dark green, homogenous, massive to locally foliated dolerite exhibiting a well developed ophitic texture towards the lower contact. This unit is composed of ~35-50% pyroxenes (green alteration rimming pyroxene cyrstals) and 50-65% plagioclase. The grain size decreases towards the lower contact, finishing with a 4 cm wide chilled margin. The upper contact is difficult to ascertain a chilled contact as the ultramafic dyklets are intermixed along shear planes. This unit is unmineralized. The lower contact of this unit is sharp at 50 degrees to the ca. along the chilled margin. **Structure** 75.50 75.51 S1 1st Foliation **Structure** 84.15 84.16 S1 1st Foliation												
92.35	141.75	**4 Anorthosite / Anorthositic Gabbro** Medium grained, non-magnetic, massive to locally foliated, white and green anorthositic gabbro composed of 40-60% plagioclase and 40-60% pyroxenes. Downhole of 122.68m, the country rock contains more mafic materials (anothositic gabbro), whereas uphole of 122.68m, there is more plagioclase within the rock (anorthositic affinity). This unit contains approximately 5% cm to dm scale horizons which appear as medium grained, massive, equigranular, dark grey horizons composed primarily of pyroxenes. These horizons may be pyroxenitic dyklets (6d) or recrystallized mafic-rich units (compositional banding)? Contact relationships for these intervals are quite irregular with the country rocks (digested), and generally undulating, which likely favours compositional banding. These units are from: 94.55-94.90m (irregular upper contact, irregular lower contact); 100.50-101.05m (35 degrees, irregular); 112.40-113.15m (irregular, irregular); 115.40-115.70m (25 degrees, irregular); 122.46-122.68m (70 degrees, approximately 50 degrees). This unit is crosscut by dolerite dyklets which appear as fine grained, black and white, homogenous, non-magnetic units composed of plagioclase and pyroxenes. Chill margins are mm scale, and contacts are razor sharp. These dyklets appear from 115.90-116.30m (30 degrees, 70 degrees); 119.60-120.50m (50 degrees, 30 degrees) and 137.00-137.78m (40 degrees, 45 degrees). The unit is unmineralized. More pyroxenitic units contain local disseminations of pyrrhotite, pyrite and chalcopyrite, generally trace to 2% sulphides). The lower contact of this unit was defined by the presence of well defined cm scale porphyroblasts of pyroxenes (opx) and is transitional over 10cm.												

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
141.75	220.05	**4 Anorthosite / Anorthositic Gabbro** Coarse grained, white-grey-black, massive, homogenous, non-magnetic to strongly magnetic anorthositic gabbro composed of 20-25% mm to cm scale, brown-black pyroxenes (opx), 30-40% dull grey-blue pyroxenes (finer grained, proximal to coarser grained metamorphic? pyroxenes) and 35-50% plagioclase. This unit contains rare trace pyrite, pyrrhotite. Downhole of 185m, magnetite occurs as dull grey-pink mm scale grains, commonly in clots, which significantly increases the magnetic susceptibility of the rock. The lower contact of this unit is sharp at 75 degrees to the ca, along a dolerite chill contact.											
		Minor Interval											
	167.20	168.50 **5 Undivided Metasediments** Fine grained, dull green-grey, non-magnetic, homogenous unit which is moderately to strongly silicified. The unit appears brecciated (on a cm scale), with more intact fragments exhibiting a preferred foliation within the rock (remenant foliation?). Infilling aroiund fragments is predominantly chlorite (soft dark green). This unit contains rare trace pyrite. The upper and lower contacts of this unit are sharp at 50 and 15 degrees to the ca, respectively. Interpretation: Raft of basement sediments (hybrid rocks) or an older anorthosite raft within a coarser grained anorthosite.											
		Minor Interval											
	217.22	218.15 **8a Dolerite** Fine grained, grey-green, weakly magnetic, homogenous, massive dolerite composed of 30-35% plagioclase with 65-70% black to grey pyroxenes. This unit is finer grained proximal to contacts (not well developed chill contact) with coarser grained central portion. Ophitic texture is apparent within coarser grained horizons. This unit contains rare trace fracture controlled pyrite. The upper and lower contacts of this unit are sharp at 55 and 75 degrees to the ca, respectively.											
		Minor Interval											
	218.50	218.67 **8a Dolerite** As described from 217.22-218.15m. The upper and lower contacts are sharp at 40 and 35 degrees to the ca, respectively.											
	Mineralization	214.36 214.37 100.0% Mt Magnetite											

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		M Massive Magnetite vein												
220.05	236.03	**8a Dolerite** Fine to medium grained, non- to weakly magnetic, homogenous, massive, grey-green dolerite composed of 30% plagioclase and 70% pyroxenes. The central portions of this unit are medium grained and exhibit an ophitic texture. Proximal to contacts, the unit is finer grained and contains mm scale fractures, infilled with quartzofeldspathic material. Thicker veinlets contain epidote rims (ie 232.40m). This unit is unmineralized. The upper and lower contacts of this unit are sharp at 75 and 30 degrees to the ca, respectively.												
236.03	249.60	**4 Anorthosite / Anorthositic Gabbro** As described from 141.75-220.05m. Coarse grained, massive, homogenous, magnetic, white-dark green anorthositic gabbro composed of 65-70% pyroxenes (dark brown to black, cm scale and a finer grained, light grey to grey-pink pyroxene) and 30-35% plagioclase. This unit is unmineralized. The lower contact of this unit is sharp along a downhole chilled contact, at 40 degrees to the ca. **Minor Interval** 237.07 237.20 **8a Dolerite** Fine grained to aphanitic (contacts), dark grey, homogenous, weakly foliated dolerite composed of 85% pyroxenes and 15% plagioclase. The upper and lower contacts of this unit are chilled (mm scale), exhibiting an aphanitic groundmass with preferentially aligned plagioclase phenocrysts at approximately (50-55 degrees to the ca). The upper and lower contacts of this unit are sharp at 50 and 55 degrees to the ca, respectively.												
249.60	256.55	**8a Dolerite** As described from 220.05-236.03m. Unit contains approximately 1-3% mm scale plagioclase phenocrysts thoughout. The upper contact is chilled (1cm wide) dark grey, aphanitic with plagioclase phenocrysts (textbook chill contact) at 40 degrees to the ca. The lower contact is sharp (weakly chilled) at 60 degrees to the ca.												

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
256.55	276.06	**4 Anorthosite / Anorthositic Gabbro** Fine to coarse grained, non-magnetic to strongly magnetic, heterogenous, massive anorthositic gabbro. This unit is quite variable in appearance and physical properties, but compositionally shows little variation. Finer grained anorthositic gabbro appears white and black (sugary texture) with metamorphic? cm scale pyroxenes within a plagioclase-rich groundmass. This finer grained horizoins are non-magnetic. Coarser grained horizons are as described from 141.75-220.05m and 236.03-249.60m, and generally quite magnetic. 262.7-265.20m: Pyroxene-rich horizon, medium grained, massive, homogenous, dark grey composed of 90% pyroxenes. Trace pyrite occurs throughout. Likely a mafic-rich horizon within precursor gabbroic anorthosite. The lower contact of this unit is sharp at 65 degrees to the ca. The lower 1.50m of this unit is mafic-rich and shows a moderate foliation (shearing). **Structure** 274.75 274.76 S1 1st Foliation												
276.06	294.75	**8a Dolerite** Fine to medium grained, massive, homogenous, white-grey-green, magnetic, unmineralized dolerite composed of 50% pyroxenes, 45% plagioclase and 5% fine grained magnetite. This unit exhibits an ophitic texture. The upper contact of this unit is sharp at 65 degrees to the ca, with the uppermost 40cm being a finer grained rock. The lower contact of this unit is unknown as the hole was shutdown.												

Espedalen - Analysis

Hole Number: ES2005-46

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00401	55.50	56.06	0.56	0.03	0.03	0.01	0.22	0.01	0.01	0.01	0.25																
PG00402	56.06	56.60	0.54	0.03	0.03	0.02	1.68	0.02	0.06	0.25	0.25																
PG00403	56.60	57.05	0.45	0.03	0.03	0.01	0.14	0.01	0.01	0.01	0.25																
PG00404	57.05	57.40	0.35	0.10	0.06	0.01	1.59	0.03	0.09	0.15	0.25																
PG00405	57.40	58.55	1.15	0.03	0.03	0.01	0.10	0.01	0.01	0.03	0.25																
PG00406	62.50	63.25	0.75	0.03	0.03	0.01	0.17	0.01	0.01	0.02	0.25																
PG00407	63.25	64.25	1.00	0.18	0.15	0.03	3.47	0.01	0.05	0.13	0.25																
PG00408	64.25	65.60	1.35	0.06	0.06	0.01	1.16	0.01	0.02	0.04	0.25																
PG00409	65.60	67.05	1.45	0.05	0.03	0.01	0.85	0.01	0.02	0.04	0.25																
PG00410	67.05	68.00	0.95	0.03	0.03	0.01	0.13	0.01	0.01	0.04	0.25																

Espedalen - Conductivity

Hole Number: ES2005-46

Depth	Conductivity (Siemens)	COMMENTS
63.50	250.00	uncut core
63.65	280.00	uncut core
63.95	220.00	uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-46

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
2.00	0.29	
3.00	0.27	
4.00	0.40	
5.00	0.53	
6.00	0.58	
7.00	0.39	
8.00	0.42	
9.00	0.36	
10.00	0.43	
11.00	0.33	
12.00	0.33	
13.00	0.37	
14.00	0.35	
15.00	0.43	
16.00	2.44	
17.00	0.54	
18.00	0.38	
19.00	0.33	
20.00	0.55	
21.00	0.46	
22.00	0.43	
23.00	0.35	
24.00	0.34	
25.00	0.38	
26.00	0.56	
27.00	0.38	
28.00	0.36	
29.00	0.42	
30.00	0.48	
31.00	0.46	
32.00	0.53	
33.00	0.38	
34.00	0.37	
35.00	0.39	
36.00	0.43	
37.00	0.53	
38.00	0.61	
39.00	0.36	

Espedalen - Magnetic Susceptibility	Hole Number: ES2005-46

40.00	0.39	
41.00	0.27	
42.00	0.31	
43.00	0.76	
44.00	0.87	
45.00	0.68	
46.00	0.62	
47.00	0.45	
48.00	0.42	
49.00	0.49	
50.00	0.71	
51.00	1.97	
52.00	0.53	
53.00	0.22	
54.00	0.33	
55.00	0.34	
56.00	0.33	
57.00	0.40	
58.00	0.66	
59.00	0.33	
60.00	0.63	
61.00	0.63	
62.00	0.65	
63.00	0.29	
64.00	43.60	
65.00	40.60	
66.00	0.51	
67.00	1.33	
68.00	0.42	
69.00	0.34	
70.00	0.42	
71.00	0.46	
72.00	0.46	
73.00	0.43	
74.00	0.34	
75.00	0.67	
76.00	0.56	
77.00	0.66	
78.00	0.60	
79.00	0.48	
80.00	0.46	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-46
81.00	0.51	
82.00	0.66	
83.00	0.62	
84.00	0.53	
85.00	0.43	
86.00	0.51	
87.00	0.51	
88.00	0.62	
89.00	0.54	
90.00	0.49	
91.00	0.49	
92.00	0.49	
93.00	0.30	
94.00	0.22	
95.00	0.28	
96.00	0.27	
97.00	0.32	
98.00	0.21	
99.00	0.29	
100.00	0.20	
101.00	0.50	
102.00	0.27	
103.00	0.31	
104.00	0.23	
105.00	0.26	
106.00	0.25	
107.00	0.32	
108.00	0.30	
109.00	0.26	
110.00	0.26	
111.00	0.31	
112.00	0.27	
113.00	0.43	
114.00	0.31	
115.00	0.28	
116.00	0.47	
117.00	0.31	
118.00	0.27	
119.00	0.23	
120.00	0.48	
121.00	0.35	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-46
122.00	0.24	
123.00	0.38	
124.00	0.32	
125.00	0.36	
126.00	0.30	
127.00	0.33	
128.00	0.31	
129.00	0.38	
130.00	0.38	
131.00	0.40	
132.00	0.38	
133.00	0.31	
134.00	0.33	
135.00	0.48	
136.00	0.41	
137.00	0.43	
138.00	0.33	
139.00	0.33	
140.00	0.36	
141.00	0.39	
142.00	0.31	
143.00	0.22	
144.00	0.25	
145.00	0.22	
146.00	0.27	
147.00	0.33	
148.00	0.32	
149.00	0.33	
150.00	0.33	
151.00	0.36	
152.00	1.59	
153.00	0.54	
154.00	0.96	
155.00	0.63	
156.00	0.41	
157.00	0.36	
158.00	0.66	
159.00	0.48	
160.00	0.66	
161.00	0.49	
162.00	0.34	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-46

163.00	0.32	
164.00	0.28	
165.00	0.33	
166.00	0.15	
167.00	0.33	
168.00	0.48	
169.00	0.41	
170.00	0.37	
171.00	0.30	
172.00	0.40	
173.00	0.39	
174.00	0.58	
175.00	0.41	
176.00	0.27	
177.00	0.49	
178.00	0.35	
179.00	0.35	
180.00	0.25	
181.00	0.30	
182.00	0.40	
183.00	0.33	
184.00	0.45	
185.00	2.18	
186.00	1.35	
187.00	2.60	
188.00	45.00	
189.00	1.24	
190.00	1.16	
191.00	1.85	
192.00	2.47	
193.00	2.16	
194.00	1.44	
195.00	2.77	
196.00	14.70	
197.00	4.85	
198.00	18.40	
199.00	4.51	
200.00	7.46	
201.00	75.90	
202.00	10.10	
203.00	16.50	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-46

204.00	35.60	
205.00	1.13	
206.00	9.80	
207.00	67.80	
208.00	9.08	
209.00	31.50	
210.00	1.01	
211.00	20.30	
212.00	3.60	
213.00	14.90	
214.00	28.70	
215.00	0.43	
216.00	2.51	
217.00	0.91	
218.00	2.66	
219.00	35.10	
220.00	1.03	
221.00	0.77	
222.00	3.53	
223.00	1.83	
224.00	6.59	
225.00	0.87	
226.00	5.88	
227.00	0.93	
228.00	0.40	
229.00	0.44	
230.00	0.78	
231.00	2.39	
232.00	0.54	
233.00	2.86	
234.00	0.60	
235.00	0.87	
236.00	1.13	
237.00	3.65	
238.00	33.60	
239.00	7.76	
240.00	90.60	
241.00	18.70	
242.00	36.80	
243.00	33.90	
244.00	26.90	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-46
245.00	17.20	
246.00	33.80	
247.00	19.10	
248.00	41.80	
249.00	1.86	
250.00	3.56	
251.00	1.73	
252.00	0.52	
253.00	1.51	
254.00	0.67	
255.00	0.79	
256.00	0.56	
257.00	1.20	
258.00	1.28	
259.00	1.05	
260.00	2.35	
261.00	3.40	
262.00	3.34	
263.00	15.30	
264.00	53.00	
265.00	25.10	
266.00	0.71	
267.00	0.32	
268.00	0.23	
269.00	0.24	
270.00	0.25	
271.00	0.40	
272.00	0.49	
273.00	0.30	
274.00	0.42	
275.00	0.33	
276.00	1.39	
277.00	12.90	
278.00	16.90	
279.00	12.50	
280.00	14.60	
281.00	16.80	
282.00	14.50	
283.00	18.20	
284.00	18.60	
285.00	18.60	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-46

286.00	16.80	
287.00	15.50	
288.00	20.30	
289.00	21.00	
290.00	15.10	
291.00	16.10	
292.00	11.00	
293.00	18.20	
294.00	20.70	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-46

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
1.60	4.00	28	100	N	
4.00	7.00	39	100	N	
7.00	10.00	46	100	N	
10.00	13.00	75	100	N	
13.00	16.00	83	100	N	
16.00	19.00	94	100	N	
19.00	22.00	74	100	N	
22.00	25.00	90	100	N	
25.00	28.00	80	100	N	
28.00	31.00	88	100	N	
31.00	34.00	80	100	N	
34.00	37.00	82	100	N	
37.00	40.00	54	100	N	
40.00	43.00	53	100	N	
43.00	46.00	93	100	N	
46.00	49.00	96	100	N	
49.00	52.00	98	100	N	
52.00	55.00	73	100	N	
55.00	58.00	79	100	N	
58.00	61.00	90	100	N	
61.00	64.00	82	100	N	
64.00	67.00	78	100	N	
67.00	70.00	100	100	N	
70.00	73.00	100	100	N	
73.00	76.00	88	100	N	
76.00	79.00	98	100	N	
79.00	82.00	98	100	N	
82.00	85.00	95	100	N	
85.00	88.00	97	100	N	
88.00	91.00	92	100	N	
91.00	94.00	93	100	N	
94.00	97.00	89	100	N	
97.00	100.00	89	100	N	
100.00	103.00	93	100	N	
103.00	106.00	96	100	N	
106.00	109.00	96	100	N	
109.00	112.00	97	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-46

112.00	115.00	96	100	N	
115.00	118.00	94	100	N	
118.00	121.00	86	100	N	
121.00	124.00	96	100	N	
124.00	127.00	89	100	N	
127.00	130.00	86	100	N	
130.00	133.00	93	100	N	
133.00	136.00	95	100	N	
136.00	139.00	94	100	N	
139.00	142.00	98	100	N	
142.00	145.00	97	100	N	
145.00	148.00	93	100	N	
148.00	151.00	97	100	N	
151.00	154.00	92	100	N	
154.00	157.00	100	100	N	
157.00	160.00	95	100	N	
160.00	163.00	74	100	N	
163.00	166.00	83	100	N	
166.00	169.00	86	100	N	
169.00	172.00	89	100	N	
172.00	175.00	87	100	N	
175.00	178.00	94	100	N	
178.00	181.00	73	100	N	
181.00	184.00	94	100	N	
184.00	187.00	95	100	N	
187.00	190.00	96	100	N	
190.00	193.00	91	100	N	
193.00	196.00	95	100	N	
196.00	199.00	94	100	N	
199.00	202.00	100	100	N	
202.00	205.00	100	100	N	
205.00	208.00	100	100	N	
208.00	211.00	100	100	N	
211.00	214.00	90	100	N	
214.00	217.00	99	100	N	
217.00	220.00	93	100	N	
220.00	223.00	98	100	N	
223.00	226.00	100	100	N	
226.00	229.00	91	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-46

229.00	232.00	93	100	N	
232.00	235.00	98	100	N	
235.00	238.00	95	100	N	
238.00	241.00	95	100	N	
241.00	244.00	95	100	N	
244.00	247.00	89	100	N	
247.00	250.00	94	100	N	
250.00	253.00	93	100	N	
253.00	256.00	92	100	N	
256.00	259.00	88	100	N	
259.00	262.00	93	100	N	
262.00	265.00	86	100	N	
265.00	268.00	97	100	N	
268.00	271.00	94	100	N	
271.00	274.00	95	100	N	
274.00	277.00	92	100	N	
277.00	280.00	100	100	N	
280.00	283.00	100	100	N	
283.00	286.00	95	100	N	
286.00	289.00	94	100	N	
289.00	292.00	98	100	N	
292.00	294.75	93	100	N	

Detailed Log

Hole Number: **ES2005-47** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
		Pulse EM Survey:	N				
Date Started:	9/1/2005	Casing:	Left in Hole, capped			Logged by:	Trevor Blair
Date Completed:	9/10/2005	Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,685.83	Local Northing:	2898.74
UTM Easting:	534,666.17	Local Easting:	0805.44
Elevation: 1001.70			

Collar Dip: -60.00
Collar Azimuth: 230.00
Length: 334.20

Comments

Purpose: Hole proposed to test the interpreted extension of the Stormyra zone, below a vertical depth of 230m (surface geophysical penetration depths). This hole will also be used as a geophysical platform (BHEM) to search for conductors at depth along the interpreted Stormyra trend.

Result: The hole intersected a thick anorthosite body which was locally crosscut by dolerite dykes from surface to a depth of 192m. An unmineralized peridotite was intersected from 252.20-267.13m (14.93m) within a thick package of volcaniclastic rocks. The latter is interpreted by M. Heim to lie outside of the Espedalen Complex but within the Jøtun Nappe.

Assays: No samples taken.

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Anorthositic terrain locally crosscut by dolerite dykes, which overly a thick package of volcaniclastic rocks (thought to lie outside of the Espedalen Complex but within the Jøtun Nappe).

Detailed Lithology

From	To		Lithology
0.00	3.20	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
3.20	39.50	**4s Sausseritized/Tectonized Anorthosite** Fine grained, white-grey-green, homogenous, non-magnetic, well foliated (60-70 degrees to the ca), unmineralized sausseritized anorthosite composed of 60-75% plagioclase and 25-40% variably altered (sausserite, fuchsite, epidote) mafics. This unit contains several dm to m scale, concordant mafic sills/dykes. These units appear as fine grained, green, homogenous, well foliated, weakly magnetic dykes/sills composed of 75% mafic minerals (chlorite, pyroxenes) and 25% plagioclase. See minor intervals for actual lengths and contact relationships. The lower contact of this unit is sharp at 55 degrees to the ca. **Minor Interval** 22.13 22.38 **10f Mafic dykes** See major unit for description. The upper and lower contacts of this unit are sharp at 75 and 40 degrees to the ca, respectively. **Minor Interval** 32.20 32.60 **10f Mafic dykes** See major unit for description. The upper and lower contacts of this unit are sharp at 70 and 70 degrees to the ca, respectively. **Minor Interval** 33.08 33.22 **10f Mafic dykes** See major unit for description. The upper and lower contacts of this unit are sharp at 60 and 80 degrees to the ca, respectively. **Minor Interval** 34.06 36.50 **10f Mafic dykes** See major unit for description. This unit contains cm scale, concordant anorthositic units intermixed with mafic sills/dykes. The upper and lower contacts of this unit are sharp at 60 and 45 degrees to the ca, respectively. **Structure** 8.75 8.76 S1 1st Foliation **Structure** 17.80 17.81 S1 1st Foliation **Structure** 25.90 25.91 S1 1st Foliation **Structure** 30.00 30.01 S1 1st Foliation												

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
39.50	51.30	**10f Mafic dykes** This unit is fine grained, green, homogenous, well foliated, weakly magnetic dykes/sills composed of 75% mafic minerals (chlorite, pyroxenes) and 25% plagioclase. Rare cubic pyrite occurs, parallel to foliation planes. The lower contact of this unit is sharp at 60 degrees to the ca, along a sheared, undulating anorthosite. **Minor Interval** 47.01 48.11 **4s Sausseritized/Tectonized Anorthosite** Anorthositic raft? or finger within mafic dyke/sill. This anorthosite appears as a well foliated, grey-green-white, homogenous, non-magnetic, unmineralized unit composed of 50% mafic minerals (chlorite, pyroxenes; variably altered) and 50% plagioclase. 47.58-47.70m: Mafic dyklet. The upper and lower contacts of this unit are both sharp at 60 degrees to the ca. **Structure** 40.25 40.26 S1 1st Foliation **Structure** 46.25 46.26 S1 1st Foliation **Structure** 50.50 50.51 S1 1st Foliation											

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
51.30	77.67	**4s Sausseritized/Tectonized Anorthosite** Fine grained, white-grey-green, homogenous, non-magnetic, well foliated (50-75 degrees to the ca), unmineralized sausseritized anorthosite composed of 60-75% plagioclase and 25-40% variably altered (sausserite, fuchsite, epidote) mafics. This unit contains several dm to m scale, concordant mafic sills/dykes. These units appear as fine grained, green, homogenous, well foliated, weakly magnetic dykes/sills composed of 75% mafic minerals (chlorite, pyroxenes) and 25% plagioclase. See minor intervals for actual lengths and contact relationships. The lower contact of this unit is sharp at 80 degrees to the ca. **Minor Interval** 67.07 70.05 **10f Mafic dykes** As described in the major interval. The upper and lower contacts of this unit are both sharp at 80 degrees to the ca. **Minor Interval** 72.30 72.83 **10f Mafic dykes** As described in the major interval. The upper and lower contacts of this unit are sharp at 50 and 75 degrees to the ca, respectively. **Alteration** 51.30 59.14 HM Hematite F Fracture-Controlled M Moderate Parallel to foliation planes, mafics preferentially hematite altered **Structure** 52.00 52.01 F Fault Poorly consolidated core, rocks sheared downhole with undulating foliations **Structure** 53.25 53.26 S1 1st Foliation **Structure** 58.60 58.61 S1 1st Foliation **Structure** 65.30 65.31 S1 1st Foliation **Structure** 75.22 75.23 S1 1st Foliation											

Detailed Lithology			Assay Data											
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
77.67	82.50	**8a Dolerite** Fine to medium grained, grey-green, well foliated (approximately 75 degrees to the ca), lineated, weakly magnetic, homogenous diorite composed of 50% plagioclase and 50% mafic minerals (pyroxenes, chlorite, biotite?). This unit appears finer grained and more mafic proximal to contacts but more felsic within the central portions of this finger. This unit contains trace pyrite. The upper and lower contacts of this unit are both sharp at 80 degrees to the ca. **Structure** 78.50 78.51 S1 1st Foliation												

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
82.50	134.11	**4s Sausseritized/Tectonized Anorthosite** Fine grained, white-grey-green, homogenous, non-magnetic, well foliated (65-75 degrees to the ca), unmineralized sausseritized anorthosite composed of 60-75% plagioclase and 25-40% variably altered (sausserite, fuchsite, epidote) mafics. This unit contains several dm to m scale, concordant mafic sills/dykes. These units appear as fine grained, green, homogenous, well foliated, weakly magnetic dykes/sills composed of 75% mafic minerals (chlorite, pyroxenes) and 25% plagioclase. See minor intervals for actual lengths and contact relationships. The lower contact of this unit is sharp at 70 degrees to the ca. **Minor Interval** 88.10 89.95 **10f Mafic dykes** As described in the major interval. The upper and lower contacts of this unit are sharp at 55 and 65 degrees to the ca, respectively. **Minor Interval** 91.88 92.00 **10f Mafic dykes** As described in the major interval. The upper and lower contacts of this unit are sharp at 70 and 60 degrees to the ca, respectively. **Minor Interval** 96.03 96.55 **10f Mafic dykes** As described in the major interval. The upper and lower contacts of this unit are both sharp at 70 degrees to the ca. **Minor Interval** 100.82 103.85 **10f Mafic dykes** As described in the major interval. The upper and lower contacts of this unit are both sharp at 70 degrees to the ca. **Minor Interval** 111.17 111.90 **10f Mafic dykes** As described in the major interval. The upper and lower contacts of this unit are sharp at 65 and 70 degrees to the ca, respectively.											

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Minor Interval

112.06 112.32 **10f Mafic dykes**
As described in the major interval.

The upper and lower contacts of this unit are sharp at 75 and 65 degrees to the ca, respectively.

Minor Interval

113.47 115.15 **10f Mafic dykes**
As described in the major interval.

The upper and lower contacts of this unit are sharp at 75 and 80 degrees to the ca, respectively.

Minor Interval

126.52 127.03 **10f Mafic dykes**
As described in the major interval.

The upper and lower contacts of this unit are sharp at 75 and 70 degrees to the ca, respectively.

Minor Interval

128.96 129.31 **10f Mafic dykes**
As described in the major interval.

The upper and lower contacts of this unit are sharp at 70 and 80 degrees to the ca, respectively.

Minor Interval

129.60 131.06 **10f Mafic dykes**
As described in the major interval. This unit contains 20% cm scale intermixed anorthositic horizons.

The upper and lower contacts of this unit are sharp at 80 and 90 degrees to the ca, respectively.

Alteration	92.45	95.93	HM	Hematite
			ST	Staining
			M	Moderate
Alteration	108.45	111.05	HM	Hematite
			F	Fracture-Controlled
			M	Moderate
			Hematite alteration parallel to foliation planes, mafi minerals altered.	
Structure	85.90	85.91	S1	1st Foliation
Structure	110.25	110.26	S1	1st Foliation
Structure	115.40	115.41	S1	1st Foliation

Detailed Lithology						Assay Data											
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Structure	125.85	125.86	S1	1st Foliation											
		Structure	132.10	132.11	S1	1st Foliation											

134.11 144.10 **8a Dolerite**

Fine to medium grained, grey-green, well foliated (approximately 70 degrees to the ca), lineated, weakly magnetic, homogenous diorite composed of 40-60% plagioclase and 40-60% mafic minerals (pyroxenes, chlorite, biotite?). This unit appears finer grained and more mafic proximal to contacts but more felsic within the central portions of this finger.

This unit contains rare trace pyrite.

The upper and lower contacts of this unit are both sharp at 65 degrees to the ca.

Structure	134.40	134.41	S1	1st Foliation
Structure	143.50	143.51	S1	1st Foliation

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
144.10	165.37	**4s Sausseritized/Tectonized Anorthosite** Fine grained, white-grey-green (locally hematite stained), homogenous, non-magnetic, well foliated (70-85 degrees to the ca), unmineralized sausseritized anorthosite composed of 60-75% plagioclase and 25-40% variably altered (sausserite, fuchsite, epidote) mafics minerals. This unit contains several dm to m scale, concordant mafic sills/dykes. These units appear as fine grained, green, homogenous, well foliated, weakly magnetic dykes/sills composed of 75% mafic minerals (chlorite, pyroxenes) and 25% plagioclase. See minor intervals for actual lengths and contact relationships. The lower contact of this unit is sharp at 70 degrees to the ca, although highly contorted (over 8cm) with downhole diorite. **Minor Interval** 150.00 150.60 **10f Mafic dykes** As described within the major unit. The upper and lower contacts of this unit are both sharp at 55 degrees to the ca. **Minor Interval** 154.70 154.98 **10f Mafic dykes** As described within the major unit. 1% pyrite is present. The upper and lower contacts of this unit are sharp at 80 and 75 degrees to the ca, respectively. **Minor Interval** 159.05 159.45 **10f Mafic dykes** As described within the major unit. 2% pyrite is present. The upper and lower contacts of this unit are sharp at 80 and 75 degrees to the ca, respectively. **Minor Interval** 160.42 161.90 **10f Mafic dykes** As described within the major unit. The upper and lower contacts of this unit are both sharp at 80 degrees to the ca. **Structure** 148.40 148.41 S1 1st Foliation **Structure** 152.10 152.11 S1 1st Foliation **Structure** 159.80 159.81 S1 1st Foliation											

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
165.37	174.10	**8a Dolerite** Fine to medium grained, grey-green, foliated, lineated, weakly magnetic, homogenous diorite composed of 40-60% plagioclase and 40-60% mafic minerals (pyroxenes, chlorite, biotite?). The upper contact of this unit is convoluted as foliation angles are irregular within the uphole anorthosite is folded ptygmatically over 8cm, and a 1cm wide dioritic finger is located within this zone. The downhole contact is sharp at 80 degrees to the ca, along a finer grained horizon. This unit contains rare trace pyrite.												

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
174.10	192.00	**4s Sausseritized/Tectonized Anorthosite** Fine grained, white-grey-green, homogenous, non-magnetic, well foliated (~80 degrees to the ca), unmineralized sausseritized anorthosite composed of 60-75% plagioclase and 25-40% variably altered (sausserite, fuchsite, epidote) mafics. This unit contains several dm to m scale, concordant mafic sills/dykes. These units appear as fine grained, green, homogenous, well foliated, weakly magnetic dykes/sills composed of 75% mafic minerals (chlorite, pyroxenes) and 25% plagioclase. See minor intervals for actual lengths and contact relationships. The lower contact of this unit is sharp at 80 degrees to the ca. **Minor Interval** 174.30 174.40 **10f Mafic dykes** As described within the major unit; may also be a dolerite (proximity to uphole unit). The upper and lower contacts of this unit are sharp at 80 and 90 degrees to the ca, respectively. **Minor Interval** 174.83 175.05 **10f Mafic dykes** As described within the major unit; may also be a dolerite (proximity to uphole unit). The upper and lower contacts of this unit are both sharp at 80 degrees to the ca. **Minor Interval** 181.59 181.84 **10f Mafic dykes** As described within the major unit. The upper and lower contacts of this unit are sharp at 80 and 90 degrees to the ca, respectively. **Structure** 176.50 176.51 F Fault Difficult to determine angle, 1cm wide fault gouge. Competent core up- and downhole. **Structure** 177.85 177.86 S1 1st Foliation **Structure** 186.70 186.71 S1 1st Foliation												

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
192.00	252.20	**10d Volcaniclastics** Fine grained (locally very fine grained), well foliated, lineated, green to grey, weakly magnetic mafic metavolcanic composed of 15-20% white plagioclase within a mafic groundmass (predominantly chlorite, sericite, pyroxenes, biotite?, some epidote proximal to quartzofeldspathic veinlets.). This unit contains 1-3% mm scale, white quartzofeldspathic veinlets (parallel to foliation). Mineralogical constituents fluctuate on a dm scale, with more mafic sections (biotite-bearing) and more felsic horizons (very fine grained). This unit contains trace cubic pyrite, locally trace pyrrhotite, generally concentrated along mm to cm scale horizons, parallel to foliation. Interpretation: Mafic metavolcanics, tuffs?; Late Proterozoic metavolcanics outside of anorthositic complex "Espedalen Complex". **Mineralization** 232.79 232.90 5.0% Py Pyrite FG Fine Grained **Mineralization** 232.79 232.90 1.0% Po Pyrrhotite FG Fine Grained **Structure** 199.00 199.01 S1 1st Foliation **Structure** 210.50 210.51 S1 1st Foliation **Structure** 218.65 218.66 S1 1st Foliation **Structure** 227.00 227.01 S1 1st Foliation **Structure** 236.50 236.51 S1 1st Foliation **Structure** 242.30 242.31 S1 1st Foliation **Structure** 250.05 250.06 S1 1st Foliation											
252.20	267.13	**6b Peridotite** Fine grained, strongly magnetic, homogenous, highly broken, black peridotite composed of ~15-20% (locally up to 40% dark grey pyroxenes in a strongly serpentinized olivine groundmass. This unit contain 5-10% finely disseminated magnetite. This unit is composed of extremely broken core, at low angles (15-25 degrees) to the ca, along black serpentine veinlets (feels like glass to touch). This unit is unmineralized. The upper contact of this unit (252.20-253.15m) is coarser grained, light to medium green in colour, weakly magnetic unit composed primarily of tremolite-actinolite, chlorite, serpentine and/or pyroxenes. Possible pyroxenitic phase of ultramafic body.											

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
267.13	334.20	**10d Volcaniclastics** Fine grained, homogenous, well foliated (~70-80 degrees to the ca), green, weakly magnetic package of mafic metavolcaniclastics composed of ~15% plagiolcase and 85% mafic minerals (chlorite, pyroxenes, biotite). As described from 192.00-253.15m. This unit contains 35% ultramafic (pyroxenite, peridotite) intrusives throughout the unit, as m scale concordant bodies. See minor units for intervals. Contacts between all of the units are generally sheared and infilled with serpentine +- talc. Peridotites: Fine grained, dark green to black, strongly magnetic, massive to locally moderately foliated, homogenous units composed of light to dark grey pyroxenes within a black serpentinized groundmass (with ~5-10% magnetite). These peridotites contain 5-15% mm scale white serpentine +- talc veinlets at various angles to the ca. Trace pyrrhotite occurs within these units, proximal to serpentine veinlets. Pyroxenites: Medium grained, green-grey, weakly to moderately magnetic, massive to locally weakly foliated units composed primarily of tremolite-actinolite and ~5% mm scale brown pyroxenes (bronzite?). Interpretation: Corresponds to Heim's Metavolcanic cover rocks (Late Proterozoic) with laccolithic bodies (locally differentiated to ultramafic - quartz-dioritic affinity?). **Minor Interval** 287.10 290.14 **6d Pyroxenite** **Minor Interval** 290.14 291.27 **6b Peridotite** **Minor Interval** 291.27 298.08 **6d Pyroxenite** **Minor Interval** 298.08 302.08 **10dVolcaniclastics** **Minor Interval** 302.08 304.18 **6b Peridotite** **Minor Interval** 304.18 308.84 **10dVolcaniclastics** **Minor Interval** 308.84 310.52 **6b Peridotite**												

Detailed Lithology						Assay Data											
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Minor Interval															
		310.52	312.48	**6d**	**Pyroxenite**												
		Structure	271.70	271.71	S1	1st Foliation											
		Structure	283.50	283.51	S1	1st Foliation											
		Structure	299.05	299.06	S1	1st Foliation											
		Structure	315.10	315.11	S1	1st Foliation											
		Structure	322.10	322.11	S1	1st Foliation											
		Structure	330.75	330.76	S1	1st Foliation											

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-47

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
4.00	0.05	
5.00	0.03	
6.00	0.03	
7.00	0.11	
8.00	0.09	
9.00	0.03	
10.00	0.10	
11.00	0.06	
12.00	0.10	
13.00	0.06	
14.00	0.06	
15.00	0.08	
16.00	0.08	
17.00	0.07	
18.00	0.07	
19.00	0.05	
20.00	0.08	
21.00	0.13	
22.00	0.10	
23.00	0.22	
24.00	0.09	
25.00	0.06	
26.00	0.10	
27.00	0.04	
28.00	0.07	
29.00	0.14	
30.00	0.09	
31.00	0.05	
32.00	0.06	
33.00	0.08	
34.00	0.05	
35.00	0.36	
36.00	0.40	
37.00	0.06	
38.00	0.10	
39.00	0.12	
40.00	0.45	
41.00	0.50	

Espedalen - Magnetic Susceptibility	Hole Number: ES2005-47

42.00	0.39	
43.00	0.42	
44.00	0.43	
45.00	0.45	
46.00	0.39	
47.00	0.34	
48.00	0.22	
49.00	0.38	
50.00	0.42	
51.00	0.27	
52.00	0.06	
53.00	0.06	
54.00	0.20	
55.00	0.12	
56.00	0.15	
57.00	0.11	
58.00	0.37	
59.00	0.14	
60.00	0.13	
61.00	0.17	
62.00	0.17	
63.00	0.15	
64.00	0.24	
65.00	0.09	
66.00	0.10	
67.00	0.18	
68.00	0.54	
69.00	0.57	
70.00	0.65	
71.00	0.39	
72.00	0.05	
73.00	0.15	
74.00	0.14	
75.00	0.04	
76.00	0.12	
77.00	0.07	
78.00	0.49	
79.00	0.52	
80.00	0.45	
81.00	0.54	
82.00	0.52	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-47
83.00	0.13	
84.00	0.09	
85.00	0.02	
86.00	0.30	
87.00	0.08	
88.00	0.14	
89.00	0.64	
90.00	0.08	
91.00	0.10	
92.00	0.12	
93.00	0.05	
94.00	0.10	
95.00	0.07	
96.00	0.08	
97.00	0.04	
98.00	0.31	
99.00	0.07	
100.00	0.20	
101.00	0.63	
102.00	0.55	
103.00	0.51	
104.00	0.43	
105.00	0.09	
106.00	0.13	
107.00	0.08	
108.00	0.05	
109.00	0.11	
110.00	0.11	
111.00	0.18	
112.00	0.11	
113.00	0.16	
114.00	1.14	
115.00	0.37	
116.00	0.07	
117.00	0.05	
118.00	0.08	
119.00	0.05	
120.00	0.09	
121.00	0.14	
122.00	0.09	
123.00	0.07	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-47
124.00	0.07	
125.00	0.07	
126.00	0.16	
127.00	0.40	
128.00	0.09	
129.00	0.12	
130.00	0.23	
131.00	0.19	
132.00	0.06	
133.00	0.08	
134.00	0.19	
135.00	0.59	
136.00	0.47	
137.00	0.41	
138.00	0.36	
139.00	0.28	
140.00	0.39	
141.00	0.54	
142.00	0.60	
143.00	0.38	
144.00	0.55	
145.00	0.06	
146.00	0.10	
147.00	0.11	
148.00	0.09	
149.00	0.14	
150.00	0.34	
151.00	0.15	
152.00	0.23	
153.00	0.20	
154.00	0.18	
155.00	0.23	
156.00	0.16	
157.00	0.12	
158.00	0.18	
159.00	0.19	
160.00	0.21	
161.00	0.89	
162.00	0.36	
163.00	0.21	
164.00	0.26	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-47
165.00	0.32	
166.00	1.22	
167.00	0.84	
168.00	0.48	
169.00	0.46	
170.00	0.69	
171.00	0.51	
172.00	0.48	
173.00	0.49	
174.00	0.54	
175.00	0.87	
176.00	0.31	
177.00	0.23	
178.00	0.22	
179.00	0.19	
180.00	0.19	
181.00	0.29	
182.00	0.26	
183.00	0.25	
184.00	0.20	
185.00	0.24	
186.00	0.12	
187.00	0.10	
188.00	0.15	
189.00	0.33	
190.00	0.28	
191.00	0.20	
192.00	0.60	
193.00	0.51	
194.00	0.65	
195.00	0.52	
196.00	0.28	
197.00	0.12	
198.00	0.41	
199.00	0.53	
200.00	0.52	
201.00	0.54	
202.00	0.65	
203.00	0.52	
204.00	0.54	
205.00	0.44	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-47
206.00	0.42	
207.00	0.43	
208.00	0.51	
209.00	0.64	
210.00	0.36	
211.00	0.21	
212.00	0.21	
213.00	0.35	
214.00	0.19	
215.00	0.24	
216.00	0.36	
217.00	0.17	
218.00	0.19	
219.00	0.23	
220.00	0.30	
221.00	0.34	
222.00	0.45	
223.00	0.49	
224.00	0.47	
225.00	0.36	
226.00	0.29	
227.00	0.22	
228.00	0.24	
229.00	0.16	
230.00	0.19	
231.00	0.47	
232.00	0.47	
233.00	0.42	
234.00	0.41	
235.00	0.65	
236.00	0.81	
237.00	0.13	
238.00	0.30	
239.00	0.45	
240.00	0.23	
241.00	0.87	
242.00	0.33	
243.00	0.43	
244.00	0.33	
245.00	0.42	
246.00	0.68	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-47

247.00	0.60	
248.00	0.46	
249.00	0.33	
250.00	0.22	
251.00	0.45	
252.00	0.22	
253.00	0.94	
254.00	19.40	
255.00	55.90	
256.00	44.70	
257.00	81.80	
258.00	67.40	
259.00	38.90	
260.00	41.70	
261.00	66.40	
262.00	49.50	
263.00	52.80	
264.00	49.50	
265.00	38.00	
266.00	13.50	
267.00	1.44	
268.00	0.49	
269.00	0.40	
270.00	0.10	
271.00	0.31	
272.00	0.65	
273.00	0.60	
274.00	0.37	
275.00	1.10	
276.00	0.38	
277.00	0.55	
278.00	0.53	
279.00	0.60	
280.00	0.57	
281.00	0.47	
282.00	0.74	
283.00	0.73	
284.00	0.46	
285.00	0.64	
286.00	0.73	
287.00	0.47	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-47
288.00	3.16	
289.00	2.65	
290.00	1.08	
291.00	29.00	
292.00	1.19	
293.00	0.20	
294.00	1.11	
295.00	0.50	
296.00	0.88	
297.00	0.25	
298.00	3.52	
299.00	0.59	
300.00	0.48	
301.00	1.24	
302.00	0.64	
303.00	15.60	
304.00	13.10	
305.00	0.66	
306.00	0.46	
307.00	0.71	
308.00	0.94	
309.00	17.50	
310.00	21.80	
311.00	0.50	
312.00	0.34	
313.00	0.55	
314.00	0.54	
315.00	0.43	
316.00	0.39	
317.00	0.43	
318.00	0.24	
319.00	0.33	
320.00	0.20	
321.00	0.66	
322.00	0.73	
323.00	0.61	
324.00	0.36	
325.00	0.04	
326.00	0.65	
327.00	0.53	
328.00	0.35	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-47

329.00	0.89	
330.00	0.37	
331.00	0.30	
332.00	0.20	
333.00	0.32	
334.00	0.04	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-47

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
3.20	6.00	12	100	N	
6.00	9.00	26	100	N	
9.00	12.00	63	100	N	
12.00	15.00	27	100	N	
15.00	18.00	41	100	N	
18.00	21.00	63	100	N	
21.00	24.00	67	100	N	
24.00	27.00	33	100	N	
27.00	30.00	20	100	N	
30.00	33.00	45	100	N	
33.00	36.00	88	100	N	
36.00	39.00	65	100	N	
39.00	42.00	67	100	N	
42.00	45.00	81	100	N	
45.00	48.00	81	100	N	
48.00	51.00	24	100	N	
51.00	54.00	38	100	N	
54.00	57.00	58	100	N	
57.00	60.00	78	100	N	
60.00	63.00	72	100	N	
63.00	66.00	62	100	N	
66.00	69.00	85	100	N	
69.00	72.00	94	100	N	
72.00	75.00	75	100	N	
75.00	78.00	81	100	N	
78.00	81.00	100	100	N	
81.00	84.00	86	100	N	
84.00	87.00	82	100	N	
87.00	90.00	87	100	N	
90.00	93.00	76	100	N	
93.00	96.00	70	100	N	
96.00	99.00	83	100	N	
99.00	102.00	81	100	N	
102.00	105.00	85	100	N	
105.00	108.00	83	100	N	
108.00	111.00	40	100	N	
111.00	114.00	90	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-47

114.00	117.00	75	100	N	
117.00	120.00	77	100	N	
120.00	123.00	96	100	N	
123.00	126.00	84	100	N	
126.00	129.00	94	100	N	
129.00	132.00	77	100	N	
132.00	135.00	80	100	N	
135.00	138.00	95	100	N	
138.00	141.00	84	100	N	
141.00	144.00	100	100	N	
144.00	147.00	95	100	N	
147.00	150.00	85	100	N	
150.00	153.00	81	100	N	
153.00	156.00	76	100	N	
156.00	159.00	82	100	N	
159.00	162.00	87	100	N	
162.00	165.00	83	100	N	
165.00	168.00	96	100	N	
168.00	171.00	80	100	N	
171.00	174.00	90	100	N	
174.00	177.00	63	100	N	
177.00	180.00	85	100	N	
180.00	183.00	87	100	N	
183.00	186.00	89	100	N	
186.00	189.00	75	100	N	
189.00	192.00	93	100	N	
192.00	195.00	95	100	N	
195.00	198.00	69	100	N	
198.00	201.00	96	100	N	
201.00	204.00	76	100	N	
204.00	207.00	94	100	N	
207.00	210.00	100	100	N	
210.00	213.00	74	100	N	
213.00	216.00	95	100	N	
216.00	219.00	100	100	N	
219.00	222.00	100	100	N	
222.00	225.00	96	100	N	
225.00	228.00	97	100	N	
228.00	231.00	83	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-47

231.00	234.00	76	100	N	
234.00	237.00	100	100	N	
237.00	240.00	74	100	N	
240.00	243.00	100	100	N	
243.00	246.00	96	100	N	
246.00	249.00	94	100	N	
249.00	252.00	100	100	N	
252.00	255.00	42	100	N	
255.00	258.00	31	100	N	
258.00	261.00	63	100	N	
261.00	264.00	14	100	N	
264.00	267.00	20	100	N	
267.00	270.00	100	100	N	
270.00	273.00	92	100	N	
273.00	276.00	96	100	N	
276.00	279.00	97	100	N	
279.00	282.00	96	100	N	
282.00	285.00	100	100	N	
285.00	288.00	100	100	N	
288.00	291.00	90	100	N	
291.00	294.00	86	100	N	
294.00	297.00	88	100	N	
297.00	300.00	69	100	N	
300.00	303.00	96	100	N	
303.00	306.00	74	100	N	
306.00	309.00	98	100	N	
309.00	312.00	84	100	N	
312.00	315.00	98	100	N	
315.00	318.00	79	100	N	
318.00	321.00	88	100	N	
321.00	324.00	89	100	N	
324.00	327.00	99	100	N	
327.00	330.00	90	100	N	
330.00	334.20	100	100	N	

Detailed Log

Hole Number: **ES2005-48** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	9/11/2005	Pulse EM Survey:	N			Logged by:	Lars Weiershaeuser
Date Completed:	9/17/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,801,800.11	Local Northing:	3077.50
UTM Easting:	534,803.63	Local Easting:	0806.25
Elevation: 991.61			

Collar Dip:	-50.00
Collar Azimuth:	231.50
Length:	330.25

Comments

Purpose: Hole proposed to test the interpreted extension of the Stormyra zone, below a vertical depth of 200m (surface geophysical penetration depths), with a coincident magnetic body. This hole will also be used as a geophysical platform (BHEM) to search for conductors at depth along the interpreted Stormyra trend.

Result: The hole intersected a thick package of intermixed anorthosites and mafic metavolcanics from 4.30m to 318.64m. Volcaniclastic rocks were intersected from 318.64m to 330.25m, which are interpreted by M. Heim to lie outside of the Espedalen Complex but within the Jøtun Nappe.

Assays: No significant results returned, all samples <0.05%Ni.

Borehole UTEM: Survey to be conducted in November 2005.

Lithological interpretation: Anorthositic terrain locally crosscut by mafic dykes, which overly a thick package of volcaniclastic rocks (thought to lie outside of the Espedalen Complex but within the Jøtun Nappe).

Detailed Lithology

From	To		Lithology
0.00	4.30	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
4.30	18.80	**4s Sausseritized/Tectonized Anorthosite** This unit consists of fine to medium-grained, white to greenish-white, well foliated, homogeneous, non-magnetic anorthosite. The main mineral is plagioclase; alteration minerals (chlorite, epidote) are common. The lower contact is sharp at 55 degree tca. This unit is not mineralized. **Minor Interval** 15.69 16.12 **10 Mafic Metavolcanic** The upper and lower contacts of this unit are sharp at 60 and 50 degrees to the ca, respectively. The upper contact is epidote altered. Throughout the unit schlierin epidote alteration occurs. This unit contains trace amounts of sulfide (pyrite). **Structure** 5.20 5.21 S1 1st Foliation **Structure** 10.25 10.26 S1 1st Foliation												

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
18.80	60.90	**10f Mafic dykes** This unit consists of a fine to medium grained, well foliated, dark gray to greenish-gray, plagioclase and pyroxene-bearing rock. Alteration minerals (chlorite, epidote) are common. The unit displays great variablility in magnetic properties; it is overall fairly homogenous. However, on a small scale significant changes can be seen. Epidote alteration occurs patchy and foliation parallel; it appears to be more abundant towards the footwall. Grain size differences are parallel to the foliation and are possibly primary. The contacts with the minor units are "fresh" and do not appear to be chilled. The lower contact is irregular and appears to be digested over about 5cm. This unit is not mineralized.											
		Minor Interval											
		20.37 21.20 **4s Sausseritized/Tectonized Anorthosite** The upper and lower contacts of this unit are sharp at 40 and 50 degrees to the ca, respectively. The unit is well foliated; possible small shear zone at 20.75m. Alteration minerals are abundant.											
		Minor Interval											
		24.65 25.32 **4s Sausseritized/Tectonized Anorthosite** The upper and lower contacts of this unit are sharp at 50 and 55 degrees to the ca, respectively. The unit is locally well foliated; alteration minerals are not very abundant.											
		Minor Interval											
		44.25 45.89 **4s Sausseritized/Tectonized Anorthosite** The upper contact is sharp but somewhat irregular at 60 degrees tca. The lower contact is sharp but irregular. This unit is only locally well-foliated; the other parts are non-foliated and appear to be recrystallized. Locally, alteration minerals are abundant.											
		Minor Interval											
		56.61 58.41 **4s Sausseritized/Tectonized Anorthosite** The upper and lower contacts are sharp; the former at 90 degrees tca, the latter is irregular. This unit is only in lower part weakly foliated; the majority is non-foliated and appears to be recrystallized. Quartz is a common alteration mineral.											
		Structure 19.50 19.51 S1 1st Foliation											
		Structure 27.50 27.51 S1 1st Foliation											
		Structure 35.61 35.62 S1 1st Foliation											
		Structure 41.51 41.52 S1 1st Foliation											
		Structure 47.40 47.41 S1 1st Foliation											
		Structure 53.11 53.12 S1 1st Foliation											

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Structure 60.22 60.23 S1 1st Foliation

60.90 69.79 **4s Sausseritized/Tectonized Anorthosite**

This unit consists of white to slightly greenish, homogeneous, locally well-foliated, non-mineralized anorthosite. Alteration minerals are not very common, but locally fuchsite and chlorite can be seen. The lower contact is very sharp at 65 degrees tca.

Minor Interval

63.80 65.09 **10 Mafic Metavolcanic**

The upper and lower contacts of this unit are poorly defined and irregular. The unit is moderately well-foliated and contains ?garnets?. Epidote alteration is abundant.

Structure 64.60 64.61 S1 1st Foliation

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
69.79	132.18	**4s Sausseritized/Tectonized Anorthosite** This unit consists of gray to gray-green, commonly well-foliated and sheared, non-magnetic anorthosite. Alteration minerals like fuchsite, chlorite, and quartz are common and pervasive. Locally, areas of weaker strain can be seen where the rock is not foliated. The amount of alteration minerals separates this anorthosite from the one in the hanging wall (60.90-69.79m). Apart from the listed mafic intrusions listed, this unit contains multiple dm-scale mafic dykes/sills. The lower contact is sharp at 60 degrees tca. This unit is not mineralized.											
		Minor Interval											
		77.50 78.92 **10f Mafic dykes** The upper and lower contacts of this unit are sharp; the former irregular, the latter at 60 degrees tca. This unit is well-foliated and non-mineralized.											
		Minor Interval											
		88.84 92.38 **10f Mafic dykes** The upper contact of this unit is sharp but brecciated, the lower contact appears digested over 10cm. This unit is well-foliated and not mineralized.											
		Minor Interval											
		98.23 99.87 **10f Mafic dykes** The upper and lower contact of this unit are sharp; the former at 65 degrees tca, the latter is irregular. This unit is well-foliated and not mineralized.											
		Minor Interval											
		113.88 123.68 **10f Mafic dykes** The upper and lower contacts are sharp at 70 and 60 degrees tca, respectively. This unit contains anorthosite "rafts" at 117.66 - 118.13m and 119.18 - 120.16m. The contacts are finer-grained and show evidence of digestion. This unit is not mineralized.											
		Alteration 69.79 132.18 ALT ALTERATION P Pervasive W Weak fuchsite											
		Alteration 69.79 132.18 Q Quartz P Pervasive W Weak											
		Structure 70.12 70.13 S1 1st Foliation											
		Structure 75.80 75.81 S1 1st Foliation											
		Structure 83.11 83.12 S1 1st Foliation											

Detailed Lithology						Assay Data											
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Structure	93.03	93.04	S1	1st Foliation											
		Structure	99.17	99.18	S1	1st Foliation											
		Structure	106.08	106.09	S1	1st Foliation											
		Structure	112.25	112.26	S1	1st Foliation											
		Structure	118.20	118.21	S1	1st Foliation											

132.18 165.56 **10f Mafic dykes**

This unit consists of a very homogeneous, well-foliated, gray, fine - to medium-grained, non-magnetic, plagioclase and pyroxene-bearing mafic rock. The lower contact is sharp at 60 degrees tca. The rock is somewhat finer-grained along the footwall contact.
Apart from the minor units, a small anorthositic "raft" is located between 162.98 and 163.46m.
This unit is not mineralized.

Minor Interval

144.75 145.63 **4s Sausseritized/Tectonized Anorthosite**
Well-foliated, sheared anorthosite; alteration minerals are common. The upper and lower contacts are sharp at 50 and 70 degrees tca, respectively.

Minor Interval

149.23 155.04 **4s Sausseritized/Tectonized Anorthosite**
Well-foliated, sheared anorthosite; alteration minerals are common. The upper and lower contacts are sharp at 55 and 65 degrees tca, respectively.

Structure	132.81	132.82	S1	1st Foliation
Structure	138.70	138.71	S1	1st Foliation
Structure	146.09	146.10	S1	1st Foliation
Structure	152.11	152.12	S1	1st Foliation
Structure	159.56	159.57	S1	1st Foliation
Structure	165.26	165.27	S1	1st Foliation

Detailed Lithology			Assay Data									
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

165.56 209.55 **4s Sausseritized/Tectonized Anorthosite**

This unit consists of a white to greenish-gray, fine-grained, fairly heterogeneous, non-magnetic, commonly well-foliated rock composed of plagioclase and abundant alteration minerals (chlorite, fuchsite, locally epidote, quartz, and hematite).
The strongest epidote-quartz alteration coincides with non-foliated parts of this rock.
Between 170.0 and 173.0m the unit contains a number of small mafic intrusive sections.
This unit is not mineralized.

The lower contact of this unit is sharp at approximately 60-70 degrees to the ca along a downhole mafic metavolcanic unit. The contact itself is brecciated over 9cm and contains chlorite infilling around cm scale, angular mafic and anorthositic fragments.

Minor Interval

175.48 178.65 **10f Mafic dykes**
Well-foliated, fine- to medium-grained mafic subunit. The upper and lower contacts are sharp at 70 and 80 degrees tca, respectively.

Minor Interval

187.12 191.08 **10f Mafic dykes**
Well-foliated, fine- to medium-grained mafic subunit. The upper and lower contacts are sharp; the upper is irregular, the lower at 80 degrees tca.

Minor Interval

193.98 194.49 **10f Mafic dykes**
Well-foliated, fine- to medium-grained mafic subunit. The upper contact is sharp at 80 degrees tca; the lower contact appears digested over 5cm..

Minor Interval

199.69 202.10 **10f Mafic dykes**
Well-foliated, fine- to medium-grained mafic subunit. The upper and lower contacts are sharp; the upper is slightly brecciated, the lower at 35 degrees tca.

Alteration	165.56	209.55	CH	Chlorite
			P	Pervasive
			W	Weak
Alteration	165.56	209.55	ALT	ALTERATION
			P	Pervasive
			W	Weak
			fuchsite	
Alteration	192.00	192.50	Q	Quartz
			PT	Patchy
			M	Moderate

Detailed Lithology						Assay Data											
From	To	Lithology				Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Alteration	192.00	192.50	EP	Epidote											
					P	Pervasive											
					S	Strong											
		Alteration	195.56	198.00	HM	Hematite											
					P	Pervasive											
					W	Weak											
		Alteration	202.50	209.50	Q	Quartz											
					PT	Patchy											
					M	Moderate											
		Alteration	202.50	209.50	EP	Epidote											
					P	Pervasive											
					S	Strong											
		Alteration	202.56	208.50	HM	Hematite											
					P	Pervasive											
					S	Strong											
		Structure	171.20	171.21	S1	1st Foliation											
		Structure	177.16	177.17	S1	1st Foliation											
		Structure	188.48	188.49	S1	1st Foliation											
		Structure	200.39	200.40	S1	1st Foliation											

Detailed Lithology			Assay Data									
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
209.55	262.21	**10f Mafic dykes** Well foliated, grey-green, homogenous, weakly magnetic, fine grained mafic metavolcanic composed of 40-55% chlorite, 30-40% plagioclase and ~ 10% biotite. This unit contains ~5% dm to m scale intermixed anorthosite horizons which appear fine grained, well foliated, homogenous, non-magnetic, unmineralized units composed of 70-80% plagioclase and 20-30% mafic minerals. See minor units for contact relationships and intervals. This unit also contains 5% cm scale felsic sweats? parallel to foliation angles (70-80 degrees to the ca). This unit contains rare trace cubic pyrite. The lower contact of this unit is sharp at 75 degrees to the ca. **Minor Interval** 220.16 220.70 **4s Sausseritized/Tectonized Anorthosite** As described in major unit. The upper and lower contacts of this unit are sharp at 65 and 80 degrees to the ca, respectively. **Minor Interval** 221.20 221.75 **4s Sausseritized/Tectonized Anorthosite** As described in major unit. The upper and lower contacts of this unit are both sharp at 75 degrees to the ca. **Minor Interval** 240.80 243.50 **4s Sausseritized/Tectonized Anorthosite** As described in major unit. The upper and lower contacts of this unit are sharp at 60 and 70 degrees to the ca, respectively. **Minor Interval** 246.60 248.49 **4s Sausseritized/Tectonized Anorthosite** As described in major unit. The upper and lower contacts of this unit are sharp at 60 and 70 degrees to the ca, respectively. **Minor Interval** 261.47 261.55 **4s Sausseritized/Tectonized Anorthosite** As described in major unit. The upper and lower contacts of this unit are sharp at 70 and 80 degrees to the ca, respectively.											

Detailed Lithology			Assay Data											
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
		Minor Interval												
	261.76 261.87	**4s Sausseritized/Tectonized Anorthosite** As described in major unit. The upper and lower contacts of this unit are both sharp at 80 degrees to the ca.												
	Structure	211.20 211.21 S1 1st Foliation												
	Structure	222.90 222.91 S1 1st Foliation												
	Structure	234.10 234.11 S1 1st Foliation												
	Structure	251.75 251.76 S1 1st Foliation												
	Structure	257.75 257.76 S1 1st Foliation												

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
262.21	318.64	**4s Sausseritized/Tectonized Anorthosite** White to gray, fine-grained, non-magnetic, well foliated, plagioclase and alteration minerals-bearing rock. The upper portion is homogeneous but the rock becomes more and more inhomogeneous and sheared with depth towards the contact with the underlying unit. This unit has been intruded by numerous m-scale mafic dykes/sills. For contact relationships see minor units. In the strongly sheared portion of the unit, epidote and quartz are common and abundant alteration minerals. Chlorite is abundant throughout this unit and can make up to ~50% of the rock. The lower contact is sharp at 90 to ca. This unit is not mineralized. **Minor Interval** 273.49 274.34 **6b Peridotite** The upper contact is sharp at 90 degrees tca, the lower contact is gradational over ca. 10cm. The unit is fine-grained and well-foliated. **Minor Interval** 293.75 295.00 **10f Mafic dykes** The upper and lower contacts are sharp at 90 and 55 degrees tca, respectively. This unit is moderately well-foliated. Trace pyrrhotite within about 20cm of the lower contact. **Minor Interval** 296.86 299.25 **10f Mafic dykes** The upper and lower contacts are sharp at 70 and 80 degrees tca, respectively. **Minor Interval** 300.33 303.10 **10f Mafic dykes** The upper contact of this unit is gradational over about 30cm; the lower contact is sharp at 90 degrees tca. This unit is fine-grained and well-foliated. **Minor Interval** 306.90 307.51 **10f Mafic dykes** The upper contact is sharp at 90 degrees tca; the lower contact appears digested and "fuzzy" with abundant quartz and epidote. This unit contains trace pyrrhotite. **Minor Interval** 310.04 316.06 **10f Mafic dykes** The upper and lower contacts are sharp at 90 and 80 degrees tca, respectively. This unit is fine-to medium-grained and well foliated.												

Detailed Lithology

From	To	Lithology				
		Alteration	309.00	310.00	Q	Quartz
					PT	Patchy
					W	Weak
		Alteration	316.00	318.00	Q	Quartz
					PT	Patchy
					W	Weak
		Structure	264.50	264.51	S1	1st Foliation
		Structure	271.60	271.61	S1	1st Foliation
		Structure	279.07	279.08	S1	1st Foliation
		Structure	287.76	287.77	S1	1st Foliation
		Structure	293.89	293.90	S1	1st Foliation
		Structure	299.73	299.74	S1	1st Foliation
		Structure	308.38	308.39	S1	1st Foliation
		Structure	315.57	315.58	S1	1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00411	326.17	327.52	1.35	0.03	0.03	0.01	0.65	0.01	0.02	0.02	0.25
PG00412	327.52	327.82	0.30	0.03	0.07	0.01	1.58	0.01	0.01	0.01	0.25
PG00413	327.82	329.00	1.18	0.03	0.03	0.01	0.18	0.01	0.01	0.02	0.25

318.64 330.25 **10d Volcaniclastics**

Medium gray, fine to medium-grained, non-magnetic, fairly inhomogeneous, plagioclase, pyroxene, and chlorite-bearing rock.
The unit is locally well-foliated. Locally, minor amounts of biotite can be found.
The lower contact of this unit is unknown as the hole was shut down.

Minor pyrrhotite and chalcopyrite mineralization between 326.66 and 326.70m.

Mineralization	326.66	326.70	1.0%	Cpy	Chalcopyrite
				STR	Stringers
				likely remobilized	
Mineralization	326.66	326.70	4.0%	Po	Pyrrhotite
				STR	Stringers
				likely remobilized	
Structure	324.40	324.41	S1	1st Foliation	

Espedalen - Analysis

Hole Number: ES2005-48

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00411	326.17	327.52	1.35	0.03	0.03	0.01	0.65	0.02	0.01	0.02	0.25																
PG00412	327.52	327.82	0.30	0.03	0.07	0.01	1.58	0.01	0.01	0.01	0.25																
PG00413	327.82	329.00	1.18	0.03	0.03	0.01	0.18	0.02	0.01	0.01	0.25																

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-48

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
5.00	0.08	
6.00	0.03	
7.00	0.05	
8.00	0.03	
9.00	0.04	
10.00	0.04	
11.00	0.05	
12.00	0.04	
13.00	0.05	
14.00	0.06	
15.00	0.03	
16.00	0.49	
17.00	0.06	
18.00	0.05	
19.00	0.35	
20.00	3.12	
21.00	0.11	
22.00	6.77	
23.00	6.05	
24.00	5.40	
25.00	0.64	
26.00	3.44	
27.00	4.71	
28.00	2.22	
29.00	1.01	
30.00	0.60	
31.00	2.17	
32.00	0.56	
33.00	12.80	
34.00	10.90	
35.00	1.13	
36.00	12.40	
37.00	7.54	
38.00	7.45	
39.00	1.60	
40.00	0.30	
41.00	0.53	
42.00	0.39	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-48

43.00	0.40	
44.00	0.46	
45.00	0.13	
46.00	0.46	
47.00	2.10	
48.00	18.20	
49.00	20.50	
50.00	31.80	
51.00	32.20	
52.00	9.84	
53.00	22.90	
54.00	26.50	
55.00	26.20	
56.00	1.51	
57.00	0.87	
58.00	0.53	
59.00	0.43	
60.00	0.43	
61.00	0.28	
62.00	0.38	
63.00	0.18	
64.00	0.48	
65.00	0.41	
66.00	0.07	
67.00	0.07	
68.00	0.07	
69.00	0.03	
70.00	0.15	
71.00	0.16	
72.00	0.16	
73.00	0.08	
74.00	0.14	
75.00	0.20	
76.00	0.13	
77.00	0.65	
78.00	0.47	
79.00	0.12	
80.00	0.17	
81.00	0.13	
82.00	0.15	
83.00	0.16	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-48
84.00	0.17	
85.00	0.35	
86.00	0.18	
87.00	0.14	
88.00	0.17	
89.00	0.22	
90.00	0.50	
91.00	0.52	
92.00	0.19	
93.00	0.16	
94.00	0.17	
95.00	0.45	
96.00	0.12	
97.00	0.19	
98.00	0.08	
99.00	0.58	
100.00	0.10	
101.00	0.66	
102.00	0.23	
103.00	0.17	
104.00	0.33	
105.00	0.56	
106.00	0.77	
107.00	0.12	
108.00	0.51	
109.00	0.10	
110.00	0.29	
111.00	0.67	
112.00	0.24	
113.00	0.34	
114.00	0.45	
115.00	0.45	
116.00	0.53	
117.00	0.58	
118.00	0.18	
119.00	0.62	
120.00	0.30	
121.00	0.44	
122.00	0.37	
123.00	0.48	
124.00	0.14	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-48

125.00	0.06	
126.00	0.10	
127.00	0.04	
128.00	0.05	
129.00	0.04	
130.00	0.06	
131.00	0.07	
132.00	0.06	
133.00	0.47	
134.00	0.57	
135.00	0.47	
136.00	0.59	
137.00	0.57	
138.00	0.55	
139.00	0.82	
140.00	0.57	
141.00	0.45	
142.00	0.52	
143.00	0.61	
144.00	0.47	
145.00	0.19	
146.00	0.65	
147.00	0.56	
148.00	0.58	
149.00	0.59	
150.00	0.16	
151.00	0.13	
152.00	0.14	
153.00	0.43	
154.00	0.18	
155.00	0.25	
156.00	0.38	
157.00	0.61	
158.00	0.46	
159.00	0.62	
160.00	0.51	
161.00	0.66	
162.00	0.52	
163.00	0.15	
164.00	0.66	
165.00	0.57	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-48
166.00	0.12	
167.00	0.14	
168.00	0.04	
169.00	0.20	
170.00	0.17	
171.00	0.39	
172.00	0.68	
173.00	0.82	
174.00	0.09	
175.00	0.15	
176.00	0.51	
177.00	0.52	
178.00	0.67	
179.00	0.07	
180.00	0.10	
181.00	0.10	
182.00	0.20	
183.00	0.18	
184.00	0.10	
185.00	0.06	
186.00	0.08	
187.00	0.10	
188.00	0.50	
189.00	0.46	
190.00	0.46	
191.00	0.42	
192.00	0.15	
193.00	0.16	
194.00	0.94	
195.00	0.06	
196.00	0.06	
197.00	0.11	
198.00	0.04	
199.00	0.05	
200.00	0.46	
201.00	0.44	
202.00	0.44	
203.00	0.12	
204.00	0.49	
205.00	0.06	
206.00	0.22	

Espedalen - Magnetic Susceptibility	Hole Number: ES2005-48

207.00	0.09	
208.00	0.08	
209.00	0.07	
210.00	0.41	
211.00	0.44	
212.00	0.38	
213.00	0.37	
214.00	0.48	
215.00	0.47	
216.00	0.50	
217.00	0.44	
218.00	0.33	
219.00	0.38	
220.00	0.49	
221.00	0.99	
222.00	0.60	
223.00	0.50	
224.00	0.46	
225.00	0.48	
226.00	0.59	
227.00	0.73	
228.00	0.59	
229.00	0.52	
230.00	0.66	
231.00	0.53	
232.00	0.62	
233.00	0.62	
234.00	0.46	
235.00	0.54	
236.00	0.54	
237.00	0.57	
238.00	0.58	
239.00	0.60	
240.00	0.84	
241.00	0.22	
242.00	0.34	
243.00	0.37	
244.00	0.54	
245.00	0.55	
246.00	0.55	
247.00	0.22	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-48
248.00	0.19	
249.00	0.80	
250.00	0.46	
251.00	0.59	
252.00	0.41	
253.00	0.60	
254.00	0.49	
255.00	0.55	
256.00	0.44	
257.00	0.57	
258.00	0.48	
259.00	0.48	
260.00	0.44	
261.00	0.59	
262.00	0.32	
263.00	0.18	
264.00	0.23	
265.00	0.14	
266.00	0.14	
267.00	0.05	
268.00	0.15	
269.00	0.11	
270.00	0.09	
271.00	0.11	
272.00	0.13	
273.00	0.51	
274.00	3.03	
275.00	0.31	
276.00	0.27	
277.00	0.30	
278.00	0.23	
279.00	0.44	
280.00	0.12	
281.00	0.19	
282.00	0.23	
283.00	0.45	
284.00	0.86	
285.00	0.40	
286.00	0.30	
287.00	0.24	
288.00	0.25	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-48
289.00	0.23	
290.00	0.29	
291.00	0.26	
292.00	0.21	
293.00	0.41	
294.00	0.31	
295.00	0.30	
296.00	0.27	
297.00	0.33	
298.00	0.46	
299.00	0.35	
300.00	0.24	
301.00	0.47	
302.00	0.46	
303.00	0.47	
304.00	0.27	
305.00	0.22	
306.00	0.27	
307.00	0.45	
308.00	0.34	
309.00	0.07	
310.00	0.36	
311.00	0.45	
312.00	0.39	
313.00	0.74	
314.00	0.55	
315.00	0.55	
316.00	0.31	
317.00	0.13	
318.00	0.55	
319.00	0.19	
320.00	0.19	
321.00	0.17	
322.00	0.19	
323.00	0.32	
324.00	0.30	
325.00	0.29	
326.00	0.19	
327.00	0.36	
328.00	0.45	
329.00	0.54	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-48
330.00	0.71	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-48

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
4.30	6.00	29	100	N	
6.00	9.00	47	100	N	
9.00	12.00	47	100	N	
12.00	15.00	32	100	N	
15.00	18.00	43	100	N	
18.00	21.00	72	100	N	
21.00	24.00	91	100	N	
24.00	27.00	100	100	N	
27.00	30.00	93	100	N	
30.00	33.00	90	100	N	
33.00	36.00	93	100	N	
36.00	39.00	88	100	N	
39.00	42.00	97	100	N	
42.00	45.00	96	100	N	
45.00	48.00	84	100	N	
48.00	51.00	93	100	N	
51.00	54.00	89	100	N	
54.00	57.00	91	100	N	
57.00	60.00	89	100	N	
60.00	63.00	93	100	N	
63.00	66.00	89	100	N	
66.00	69.00	85	100	N	
69.00	72.00	76	100	N	
72.00	75.00	75	100	N	
75.00	78.00	87	100	N	
78.00	81.00	100	100	N	
81.00	84.00	100	100	N	
84.00	87.00	100	100	N	
87.00	90.00	95	100	N	
90.00	93.00	100	100	N	
93.00	96.00	87	100	N	
96.00	99.00	100	100	N	
99.00	102.00	96	100	N	
102.00	105.00	94	100	N	
105.00	108.00	94	100	N	
108.00	111.00	92	100	N	
111.00	114.00	88	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-48

114.00	117.00	76	100	N	
117.00	120.00	98	100	N	
120.00	123.00	87	100	N	
123.00	126.00	95	100	N	
126.00	129.00	95	100	N	
129.00	132.00	88	100	N	
132.00	135.00	100	100	N	
135.00	138.00	83	100	N	
138.00	141.00	99	100	N	
141.00	144.00	100	100	N	
144.00	147.00	97	100	N	
147.00	150.00	94	100	N	
150.00	153.00	100	100	N	
153.00	156.00	100	100	N	
156.00	159.00	96	100	N	
159.00	162.00	94	100	N	
162.00	165.00	92	100	N	
165.00	168.00	93	100	N	
168.00	171.00	100	100	N	
171.00	174.00	74	100	N	
174.00	177.00	82	100	N	
177.00	180.00	89	100	N	
180.00	183.00	89	100	N	
183.00	186.00	90	100	N	
186.00	189.00	71	100	N	
189.00	192.00	81	100	N	
192.00	195.00	85	100	N	
195.00	198.00	94	100	N	
198.00	201.00	87	100	N	
201.00	204.00	79	100	N	
204.00	207.00	88	100	N	
207.00	210.00	85	100	N	
210.00	213.00	73	100	N	
213.00	216.00	99	100	N	
216.00	219.00	100	100	N	
219.00	222.00	88	100	N	
222.00	225.00	96	100	N	
225.00	228.00	95	100	N	
228.00	231.00	91	100	N	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-48

231.00	234.00	93	100	N	
234.00	237.00	91	100	N	
237.00	240.00	90	100	N	
240.00	243.00	90	100	N	
243.00	246.00	97	100	N	
246.00	249.00	95	100	N	
249.00	252.00	95	100	N	
252.00	255.00	100	100	N	
255.00	258.00	95	100	N	
258.00	261.00	85	100	N	
261.00	264.00	88	100	N	
264.00	267.00	80	100	N	
267.00	270.00	100	100	N	
270.00	273.00	97	100	N	
273.00	276.00	94	100	N	
276.00	279.00	90	100	N	
279.00	282.00	65	100	N	
282.00	285.00	98	100	N	
285.00	288.00	88	100	N	
288.00	291.00	100	100	N	
291.00	294.00	93	100	N	
294.00	297.00	84	100	N	
297.00	300.00	98	100	N	
300.00	303.00	87	100	N	
303.00	306.00	89	100	N	
306.00	309.00	97	100	N	
309.00	312.00	97	100	N	
312.00	315.00	80	100	N	
315.00	318.00	100	100	N	
318.00	321.00	83	100	N	
321.00	324.00	96	100	N	
324.00	327.00	87	100	N	
327.00	330.25	100	100	N	

Detailed Log

Hole Number: **ES2005-49** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
Date Started:	9/20/2005	Pulse EM Survey:	N			Logged by:	larsw
Date Completed:	9/23/2005	Casing:	Left in Hole, capped				
		Location:	Surface				

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,807,003.62	Local Northing:	1988.69
UTM Easting:	529,016.02	Local Easting:	3099.93
Elevation: 1100.89			

Collar Dip:	-70.00
Collar Azimuth:	230.00
Length:	83.05

Comments

Purpose: Hole proposed to test a large conductive plate (500m x 150m), with a conductivity of 175 Siemens, which was defined with the 2003 UTEM survey (Conductor B).

Result: The hole collared in interpreted jotunites to a depth of 35.21m, afterwhich sulphidic sediments were intersected which contained dm scale fine grained pyrrhotite and pyrite (20-30%) from 44.80-45.64m (0.84m) and 55.45-55.78m (0.33m). The hole finished at 83.05m within mafic metavolcanics.

Assays: No significant results returned, all samples <0.05%Ni.

Lithological interpretation: Intersected package of jotunites (Heim's rock suite 1) intermixed with sulphidic sediments (Heim's "hybrid rocks") which likely respresent basement rocks of the Espedalen Complex.

Detailed Lithology

From	To		Lithology
0.00	3.00	C	**Casing**

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology			Assay Data										
From	To	Lithology	Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
3.00	35.21	**1 Jotunite** Medium to coarse-grained, weakly foliated, gray and white (mottled appearance), non-magnetic rock consisting of quartz, plagioclase and mafic minerals. The rock has a light gneissic texture and is homogeneous. The lower contact is sharp but irregular. This unit is cut by m-scale mafic dykes; see description of minor units for contact relationships. No mineralization was found within this unit. **Minor Interval** 4.34 9.08 **10f Mafic dykes** Fine to medium-grained, well foliated mafic dike. The upper contact is sharp but irregular, the lower contact is sharp at 60 degrees tca. The rock is finer-grained along the contacts. A jotunite "raft" occurs between 7.64 and 8.15m. **Minor Interval** 31.44 34.65 **10f Mafic dykes** Fine to medium-grained, well foliated mafic dyke. The upper and lower contacts are sharp at 50 and 10 degrees tca, respectively. The rock is finer-grained along the contacts. **Structure** 5.74 5.75 S1 1st Foliation **Structure** 15.45 15.46 S1 1st Foliation **Structure** 24.42 24.43 S1 1st Foliation **Structure** 29.58 29.59 S1 1st Foliation											

Detailed Lithology

From	To	Lithology
35.21	58.39	**5b Pelitic Metasediments** This unit consists of a fine to medium-grained, light gray, moderately to well-foliated, siliceous, plagioclase-rich metasediment. Locally, garnets are abundant as is epidote. The unit is fairly homogeneous on a meter scale but shows variations on a smaller scale (bedding?). Abundant sulfides (pyrrhotite and pyrite) occur as seemingly remobilized veinlets and patchy to blebby concentrations. Where pyrrhotite is abundant the magnetic susceptibility is high, elsewhere the unit is non-magnetic.

Mineralization	44.80	45.64	4.0%	Py PAT	Pyrite Patchy
Mineralization	44.80	45.64	20.0%	Po PAT	Pyrrhotite Patchy
Mineralization	44.80	45.64	1.0%	Cpy PAT	Chalcopyrite Patchy
Mineralization	48.45	48.55	5.0%	Py STR remobilized	Pyrite Stringers
Mineralization	48.45	48.55	15.0%	Po STR remobilized	Pyrrhotite Stringers
Mineralization	55.45	55.78	2.0%	Py D	Pyrite Disseminated
Mineralization	55.45	55.78	8.0%	Po D	Pyrrhotite Disseminated
Mineralization	56.70	58.39	3.0%	Py STR remobilized	Pyrite Stringers
Mineralization	56.70	58.39	12.0%	Po STR remobilized	Pyrrhotite Stringers
Structure	41.01	41.02	S1	1st Foliation	
Structure	48.16	48.17	S1	1st Foliation	
Structure	56.55	56.56	S1	1st Foliation	

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00414	43.65	44.80	1.15	0.03	0.03	0.01	0.19	0.01	0.01	0.01	0.25
PG00415	44.80	45.64	0.84	0.03	0.03	0.01	7.07	0.01	0.01	0.02	0.25
PG00416	45.64	46.81	1.17	0.03	0.03	0.01	0.22	0.01	0.01	0.01	0.25
PG00417	54.50	55.45	0.95	0.03	0.03	0.01	1.23	0.01	0.01	0.01	0.25
PG00418	55.45	55.78	0.33	0.03	0.06	0.01	6.47	0.02	0.01	0.01	0.25
PG00419	55.78	56.70	0.92	0.03	0.03	0.01	2.65	0.01	0.01	0.01	0.25
PG00420	56.70	57.82	1.12	0.03	0.06	0.01	6.93	0.01	0.01	0.02	0.25
PG00421	57.82	58.39	0.57	0.03	0.03	0.01	4.86	0.01	0.01	0.01	0.25

Detailed Lithology

From	To	Lithology
58.39	83.05	**10 Mafic Metavolcanic** This unit consists of a dark gray and white, inhomogeneous, non-magnetic, plagioclase, chlorite and mafic mineral-bearing, locally well-foliated mafic rock. Locally, clots of biotite are abundant. The inhomogeneity is characterized by anatexic and durchbewegungs textures. Locally, white plagioclase constitutes up to ~80% of the rock. The upper ~10m contain mm-scale pyrrhotite-rich sulfide veinlets, which likely originated in the overlying mineralized metasediments. The lower contact of this unit was not found as the hole was shut down.

Structure	66.65	66.66	S1	1st Foliation
Structure	75.33	75.34	S1	1st Foliation
Structure	81.15	81.16	S1	1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00422	58.39	59.50	1.11	0.03	0.03	0.01	3.41	0.01	0.01	0.01	0.25
PG00423	59.50	60.50	1.00	0.03	0.03	0.01	0.75	0.01	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2005-49

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00414	43.65	44.80	1.15	0.03	0.03	0.01	0.19	0.01	0.01	0.01	0.25																
PG00415	44.80	45.64	0.84	0.03	0.03	0.01	7.07	0.02	0.01	0.01	0.25																
PG00416	45.64	46.81	1.17	0.03	0.03	0.01	0.22	0.01	0.01	0.01	0.25																
PG00417	54.50	55.45	0.95	0.03	0.03	0.01	1.23	0.01	0.01	0.01	0.25																
PG00418	55.45	55.78	0.33	0.03	0.06	0.01	6.47	0.01	0.02	0.01	0.25																
PG00419	55.78	56.70	0.92	0.03	0.03	0.01	2.65	0.01	0.01	0.01	0.25																
PG00420	56.70	57.82	1.12	0.03	0.06	0.01	6.93	0.02	0.01	0.01	0.25																
PG00421	57.82	58.39	0.57	0.03	0.03	0.01	4.86	0.01	0.01	0.01	0.25																
PG00422	58.39	59.50	1.11	0.03	0.03	0.01	3.41	0.01	0.01	0.01	0.25																
PG00423	59.50	60.50	1.00	0.03	0.03	0.01	0.75	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-49

Depth	Conductivity (Siemens)	COMMENTS
44.95	10.00	on uncut core
45.10	130.00	on uncut core
45.30	35.00	on uncut core
45.50	25.00	on uncut core
45.70	20.00	on uncut core
55.60	100.00	on uncut core
56.40	25.00	on uncut core
56.75	70.00	on uncut core
57.65	165.00	on uncut core
58.39	225.00	on uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-49

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
3.00	0.05	
4.00	0.16	
5.00	0.58	
6.00	0.63	
7.00	0.59	
8.00	0.39	
9.00	0.49	
10.00	0.23	
11.00	0.37	
12.00	0.36	
13.00	0.37	
14.00	0.29	
15.00	0.23	
16.00	0.46	
17.00	0.39	
18.00	0.24	
19.00	0.22	
20.00	0.20	
21.00	0.45	
22.00	0.29	
23.00	0.13	
24.00	0.89	
25.00	0.82	
26.00	0.23	
27.00	0.24	
28.00	0.31	
29.00	0.28	
30.00	0.32	
31.00	0.30	
32.00	0.30	
33.00	0.18	
34.00	0.73	
35.00	0.43	
36.00	0.48	
37.00	0.14	
38.00	0.71	
39.00	0.16	
40.00	0.19	

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-49

41.00	0.58	
42.00	0.08	
43.00	0.22	
44.00	0.80	
45.00	11.40	
46.00	0.15	
47.00	0.44	
48.00	0.27	
49.00	0.18	
50.00	0.24	
51.00	0.20	
52.00	0.72	
53.00	0.66	
54.00	0.88	
55.00	1.00	
56.00	0.96	
57.00	3.24	
58.00	2.83	
59.00	4.30	
60.00	3.37	
61.00	4.20	
62.00	0.72	
63.00	0.90	
64.00	0.56	
65.00	0.58	
66.00	0.72	
67.00	0.73	
68.00	4.75	
69.00	0.54	
70.00	0.38	
71.00	0.55	
72.00	0.70	
73.00	0.48	
74.00	0.49	
75.00	0.46	
76.00	0.44	
77.00	0.63	
78.00	0.53	
79.00	0.82	
80.00	0.38	
81.00	2.98	

Espedalen - Magnetic Susceptibility	Hole Number: ES2005-49

82.00	0.58	
83.00	0.72	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-49

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
3.00	6.00	25	100	N	
6.00	9.00	21	100	N	
9.00	12.00	65	100	N	
12.00	15.00	72	100	N	
15.00	18.00	52	100	N	
18.00	21.00	82	100	N	
21.00	24.00	51	100	N	
24.00	27.00	62	100	N	
27.00	30.00	54	100	N	
30.00	33.00	10	100	N	
33.00	36.00	24	100	N	
36.00	39.00	35	100	N	
39.00	42.00	54	100	N	
42.00	45.00	46	100	N	
45.00	48.00	65	100	N	
48.00	51.00	88	100	N	
51.00	54.00	52	100	N	
54.00	57.00	54	100	N	
57.00	60.00	47	100	N	
60.00	63.00	68	100	N	
63.00	66.00	85	100	N	
66.00	69.00	46	100	N	
69.00	72.00	67	100	N	
72.00	75.00	91	100	N	
75.00	78.00	71	100	N	
78.00	81.00	80	100	N	
81.00	83.05	52	100	N	

Detailed Log

Hole Number: **ES2005-50** Units: METRIC

Project Name:	Espedalen	Collar Survey:	Y	Plugged	N	Core Storage:	Strand Fjellstue
Project Number:	300	Mulitshot Survey:	N	Hole Size:	TT46	Contractor:	Arctic Drilling A/S
		Pulse EM Survey:	N				
Date Started:	9/23/2005	Casing:	Left in Hole, capped				
Date Completed:	9/24/2005	Location:	Surface			Logged by:	larsw

UTM WGS 84 Coord		Local Coord	
UTM Northing:	6,807,042.21	Local Northing:	2048.57
UTM Easting:	529,061.80	Local Easting:	3099.80
Elevation: 1097.31			

Collar Dip:	-69.00
Collar Azimuth:	231.00
Length:	76.85

Comments

Purpose: Hole proposed to test a large conductive plate (500m x 150m), with a conductivity of 175 Siemens, which was defined with the 2003 UTEM survey (Conductor B).

Result: The hole collared intermixed interpreted jotunites and mafic metavolcanics to a depth of 45.90m, afterwhich sulphidic sediments were intersected from 45.90-69.94m. Sulphidic sediments contained trace to 5% fine grained pyrrhotite and pyrite, with concentrations locally up to 10-15% (66.80-68.03m). The hole finished at 76.85m within mafic metavolcanics.

Assays: No significant results returned, all samples <0.05%Ni.

Lithological interpretation: Intersected intermixed package of jotunites and sulphidic sediments (Heim's "hybrid rocks") which likely respresent basement rocks of the Espedalen Complex.

Detailed Lithology

From	To		Lithology
0.00	0.80	C	**Casing**
0.80	41.12	10	**Mafic Metavolcanic** This unit consists of a black and white, plagioclase (~40%), pyroxene (~50%) and alteration mineral (~10%)-bearing, non-magnetic mafic rock. The unit is homogeneous on a meter scale; the appearance changes due to grain size differences. The rock is only locally weakly foliated. Locally, anatexic textures occur. The lower contact of this unit is sharp at 70 degrees tca. **Structure** 23.75 23.76 S1 1st Foliation
41.12	45.90	1	**Jotunite** This thin unit consists of an inhomogeneous, non-magnetic, quartz, plagioclase, and mafic mineral-bearing, gray and white rock. Most of this unit is strongly sheard; the "original" gneissic textures is preserved only locally, here the rock is coarse-grained. The lower contact is sheared at 60 degrees tca. This unit is not mineralized. **Structure** 43.69 43.70 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t

Detailed Lithology

From	To	Lithology
45.90	69.94	**5b Pelitic Metasediments** This unit consists of a fine to medium-grained, light gray, locally moderately to well-foliated, siliceous, plagioclase-rich metasediment. The unit is fairly homogeneous on a meter scale but shows variations on a smaller scale (bedding?). The lower contact is sheared at 50 degrees tca. Abundant sulfides (pyrrhotite and pyrite) occur as seemingly remobilized veinlets and patchy to blebby concentrations. Where pyrrhotite is abundant the magnetic susceptibility is high, elsewhere the unit is non-magnetic. **Mineralization** 59.21 59.37 15.0% Po Pyrrhotite STR Stringers remobilized **Mineralization** 59.21 59.37 5.0% Py Pyrite STR Stringers remobilized **Mineralization** 64.77 66.80 0.5% Po Pyrrhotite TR Trace mm-scale remobilized veinlets **Mineralization** 66.80 68.03 5.0% Py Pyrite STR Stringers remobilized **Mineralization** 66.80 68.03 10.0% Po Pyrrhotite STR Stringers remobilized **Mineralization** 68.03 69.94 1.0% Py Pyrite STR Stringers remobilized in dm-scale "zones" **Mineralization** 68.03 69.94 4.0% Po Pyrrhotite STR Stringers remobilized in dm-scale "zones" **Structure** 53.53 53.54 S1 1st Foliation
69.94	76.85	**10 Mafic Metavolcanic** This unit consists of a black and white, plagioclase (~40%), pyroxene (~50%) and alteration mineral (~10%)-bearing, non-magnetic mafic rock. The unit is homogeneous on a meter scale; the appearance changes due to grain size differences. The rock is only locally weakly foliated. Locally, anatexic textures occur. The upper contact is sheared over ~1m. The lower contact was not intersected as the hole was shut down. In the upper ~1m this unit contains mm-scale remobilized sulfide (po, py) veinlets. **Structure** 70.49 70.50 S1 1st Foliation **Structure** 76.30 76.31 S1 1st Foliation

Assay Data

Sample #	From	To	Length	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
PG00424	63.50	64.77	1.27	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25
PG00426	64.77	65.77	1.00	0.03	0.03	0.01	1.54	0.01	0.01	0.01	0.25
PG00427	65.77	66.80	1.03	0.03	0.03	0.01	1.11	0.01	0.01	0.01	0.25
PG00428	66.80	68.03	1.23	0.03	0.03	0.01	5.12	0.01	0.01	0.01	0.25
PG00429	68.03	69.00	0.97	0.03	0.03	0.01	2.54	0.01	0.01	0.01	0.25
PG00430	69.00	69.94	0.94	0.03	0.03	0.01	5.15	0.01	0.01	0.04	0.25
PG00431	69.94	71.00	1.06	0.03	0.03	0.01	1.16	0.01	0.01	0.01	0.25
PG00432	71.00	72.00	1.00	0.03	0.03	0.01	0.18	0.01	0.01	0.01	0.25

Espedalen - Analysis

Hole Number: ES2005-50

Sample Number	From	To	Sample Length (m)	Ni%	Cu%	Co%	S%	Au g/t	Pt g/t	Pd g/t	Ag g/t	Pb%	Zn%	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	V2O5 %	LOI%	SUM %
PG00424	63.50	64.77	1.27	0.03	0.03	0.01	0.10	0.01	0.01	0.01	0.25																
PG00426	64.77	65.77	1.00	0.03	0.03	0.01	1.54	0.01	0.01	0.01	0.25																
PG00427	65.77	66.80	1.03	0.03	0.03	0.01	1.11	0.01	0.01	0.01	0.25																
PG00428	66.80	68.03	1.23	0.03	0.03	0.01	5.12	0.01	0.01	0.01	0.25																
PG00429	68.03	69.00	0.97	0.03	0.03	0.01	2.54	0.01	0.01	0.01	0.25																
PG00430	69.00	69.94	0.94	0.03	0.03	0.01	5.15	0.04	0.01	0.01	0.25																
PG00431	69.94	71.00	1.06	0.03	0.03	0.01	1.16	0.01	0.01	0.01	0.25																
PG00432	71.00	72.00	1.00	0.03	0.03	0.01	0.18	0.01	0.01	0.01	0.25																

Espedalen - Conductivity

Hole Number: ES2005-50

Depth	Conductivity (Siemens)	COMMENTS
59.33	75.00	on uncut core
65.56	60.00	on uncut core
66.25	14.00	on uncut core
67.00	40.00	on uncut core
67.20	50.00	on uncut core
67.40	70.00	on uncut core
67.60	150.00	on uncut core
67.80	25.00	on uncut core
67.95	150.00	on uncut core
68.00	60.00	on uncut core
68.20	20.00	on uncut core
68.40	160.00	on uncut core
68.60	25.00	on uncut core
68.75	275.00	on uncut core
68.80	50.00	on uncut core
69.00	35.00	on uncut core
69.20	190.00	on uncut core
69.40	35.00	on uncut core
69.60	35.00	on uncut core

Espedalen - Magnetic Susceptibility

Hole Number: ES2005-50

DEPTH	MAGNETIC SUSCEPTIBILITY (X 10^{-3} SI)	COMMENTS
1.00	0.59	
2.00	0.57	
3.00	0.52	
4.00	0.60	
5.00	0.85	
6.00	0.62	
7.00	1.13	
8.00	0.69	
9.00	0.53	
10.00	0.48	
11.00	0.52	
12.00	0.52	
13.00	0.58	
14.00	1.14	
15.00	0.68	
16.00	0.69	
17.00	0.57	
18.00	0.53	
19.00	0.63	
20.00	0.54	
21.00	0.64	
22.00	0.55	
23.00	0.44	
24.00	0.56	
25.00	0.37	
26.00	1.80	
27.00	1.20	
28.00	1.00	
29.00	0.92	
30.00	0.85	
31.00	0.66	
32.00	0.56	
33.00	0.76	
34.00	0.62	
35.00	0.55	
36.00	0.26	
37.00	0.70	
38.00	0.60	

Espedalen - Magnetic Susceptibility		Hole Number: ES2005-50
39.00	0.64	
40.00	0.83	
41.00	0.16	
42.00	0.13	
43.00	0.25	
44.00	0.29	
45.00	0.20	
46.00	0.35	
47.00	0.37	
48.00	0.28	
49.00	0.54	
50.00	0.24	
51.00	0.15	
52.00	0.21	
53.00	0.13	
54.00	0.40	
55.00	0.09	
56.00	0.08	
57.00	0.17	
58.00	0.09	
59.00	0.11	
60.00	0.16	
61.00	0.22	
62.00	0.50	
63.00	0.20	
64.00	0.18	
65.00	1.51	
66.00	0.32	
67.00	6.00	
68.00	2.90	
69.00	0.32	
70.00	0.88	
71.00	1.22	
72.00	0.66	
73.00	0.54	
74.00	0.49	
75.00	0.43	
76.00	0.52	

Espedalen - Rock Quality (RQD)

Hole Number: ES2005-50

FROM	TO	PERCENT QUALITY	PERCENT CORE	DISKING	COMMENTS
0.80	3.00	23	100	N	
3.00	6.00	57	100	N	
6.00	9.00	50	100	N	
9.00	12.00	73	100	N	
12.00	15.00	70	100	N	
15.00	18.00	50	100	N	
18.00	21.00	73	100	N	
21.00	24.00	83	100	N	
24.00	27.00	78	100	N	
27.00	30.00	57	100	N	
30.00	33.00	63	100	N	
33.00	36.00	20	100	N	
36.00	39.00	17	100	N	
39.00	42.00	20	100	N	
42.00	45.00	47	100	N	
45.00	48.00	44	100	N	
48.00	51.00	67	100	N	
51.00	54.00	66	100	N	
54.00	57.00	50	100	N	
57.00	60.00	40	100	N	
60.00	63.00	80	100	N	
63.00	66.00	57	100	N	
66.00	69.00	62	100	N	
69.00	72.00	58	100	N	
72.00	76.85	56	100	N	

APPENDIX C

DRILL LOGS