

Hole Number: ES07-83

Units: METRIC

Project Name: Norway - Espedalen	Primary Coordinates Grid: UTM84-32N	Destination Coordinates Grid: UTM:	Collar Dip: -59.80
Project Number: 201	North: 6806418.50	North: 61.39	Collar Az: 232.20
Location: Andreasburg	East: 534975.23	East: 9.65	Length: 281.95 (m)
	Elev: 1009.16	Elev: 1009.16	Start Depth: 0.00 (m)
Date Started: Aug 12, 2007	Collar Survey: Y	Plugged: N	Contractor: Geo Drilling A/S
Date Completed: Aug 19, 2007	Multishot Survey: N	Hole Size: BQ	Core Storage: Tyrstrand
Logged By: klnor	Pulse EM Survey: N	Casing: Left in Hole, capped	Final Depth: 281.95 (m)

Comments: Testing the gossanous outcrop zone at depth, below ES07-81 and ES07-82. The hole is positioned midway between the aforementioned holes. The zone is located about 700m north of Andreasburg.

## Sample Averages

Detailed Lithology		Assay Data							
From (m)	To (m)	Lithology	Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
0	1.40	CAS, Casing							
1.40	22.95	GAB, Gabbro leucogabbro, grey in colour, massive to foliated, locally fractured, mm-sized feldspar phenos throughout, nil sulphides, gradational contact with unit below 22.95m. Texture 1.40 - 22.95 : HOMO Homogeneous Alteration 1.40 - 22.95 : BIO Biotite, INT Interstitial, W Weak 1.40 - 22.95 : CH Chlorite, H Patchy, W Weak Structure 1.40 - 22.95 : FOL Foliated, 45 Deg to CA 6.20 - 6.50 8.30 - 8.85 13.06 - 13.75 14.80 - 14.95 17.00 - 17.40							
22.95	50.67	ANOR, Anorthosite dark grey with abundant off-white coloured orthoclase porphyroblasts up to 10cm in size, predominantly subhedral in shape, groundmass is fine-grained, foliated (i.e 42-56 deg to the LCA) to massive, competent core, no sulphides Texture 22.95 - 50.67 : PRBL Porphyroblastic							

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From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
50.67	59.17	<p>GAB, Gabbro grey in colour, fine to-medium grained, moderately foliated, abundant millimetric "snowflake" feldspar phenocrysts comprising about 30% of the constituents, foliation trends at 67-72 deg to the LCA, chilled lower contact with unit below.</p> <p>Texture 57.67 - 57.85 : BX Brecciated</p> <p>Structure 50.67 - 59.17 : FOL Foliated, 45 Deg to CA</p> <p>MINOR INTERVALS: Minor Interval: 50.67 - 51.47 GAB, Gabbro strongly sheared contact zone, sheared at 90 deg to the LCA Minor Interval: 51.47 - 52.4 MD, Mafic Dike grey n colour, very fine grained, homogenous texture, sharp lower contact at 78 deg to the LCA, nil sulphides Minor Interval: 53.18 - 56.4 MD, Mafic Dike dark grey, fine grained, foliated at 70 deg to the LCA., sharp lower contact at 75 deg to the LCA</p>							
59.17	63.10	<p>ANOR, Anorthosite variably coloured, bleached, strongly altered, silicified, random hairline carbonate fracture fillings, blocky core, nil sulphides</p> <p>Texture 59.17 - 63.10 : HETR Heterogeneous 59.17 - 63.10 : BC Broken Core</p> <p>Structure 59.17 - 63.10 59.17 - 63.10 : LC Lower Contact, 50 Deg to CA</p>							

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From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
63.10	83.40	<p>GAB, Gabbro similar to that observed from 50.67 to 59.17 above</p> <p>Texture 63.10 - 83.40 : MG Medium Grained</p> <p>Alteration 78.80 - 80.25 :Qtz Quartz, P Pervasive, M Moderate silicified</p> <p>70.60 - 70.90 :Alb Albite, V Vein, W Weak veinlet</p> <p>Structure 66.72 - 67.40 : FOL Foliated, 60 Deg to CA foliated to sheared</p> <p>MINOR INTERVALS: Minor Interval: 80.25 - 83.4 ANOR, Anorthosite similar to unit observed above from 59.17 to 63.10, strongly altered, strongly silicified, mottled colouration, nil sulphides</p> <p>Alteration 80.25 - 83.40 :BL Bleaching, P Pervasive, S Strong</p> <p>Structure 80.25 - 80.40 : UC Upper Contact, 42 Deg to CA altered contact zone, nil sulphides</p>							
83.40	88.15	<p>GAB, Gabbro grey in colour, well foliated to sheared, silicified throughout.</p> <p>Texture 83.40 - 88.15 : MG Medium Grained</p> <p>Alteration 83.40 - 88.15 :Sil Silica, P Pervasive, M Moderate</p> <p>Structure 83.40 - 88.15 : SHR Shear, 0.47 Deg to CA 84.40 - 85.15 : F Fractured, 44 Deg to CA</p> <p>MINOR INTERVALS: Minor Interval: 83.4 - 83.54 MD, Mafic Dike black in colour, fine grained, weakly foliated at 42 deg to the LCA,</p>							
88.15	96.58	<p>ANOR, Anorthosite same as unit observed from 22.95 to 50.67m above</p>							

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From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
96.58	176.71	GAB, Gabbro grey in colour, leuco-gabbroic, massive, competent core, locally sheared, feldspar-phyric - "snowflake" crystals throughout, nil sulphides. Texture 96.58 - 171.70 : MASS Massive Alteration 168.58 - 171.70 :MAG Magnetite, P Pervasive, S Strong 101.58 - 109.50 :MAG Magnetite, P Pervasive, S Strong Structure 120.50 - 121.72 120.50 - 122.28 171.50 - 171.70 173.60 - 176.71 173.60 - 176.71 : SHR Shear, 45 Deg to CA MINOR INTERVALS: Minor Interval: 171.98 - 173.6 MD, Mafic Dike dark grey, weak ly foliated, homogeous texture, abrupt lower contact trends 32 deg to the LCA.							
176.71	184.10	UM, Ultramafic dark grey, medium grained, massive to weakly foliated at 50 deg to the LCA., noticable pyroxene subhedra, locally magnetic, locally sheared, rare carbonate veining, nil sulphides Structure 176.71 - 184.10 : FOL Foliated, 50 Deg to CA							
184.10	199.90	GAB, Gabbro similar to unit observed above from 96.58 to 176.71m, locally sheared, conspicuous "snowflake" fspar crystals uo to 35%. Structure 184.10 - 199.90 : SHR Shear, 48 Deg to CA 191.20 - 191.40 : FOL Foliated, 53 Deg to CA 192.60 - 192.70 : FOL Foliated, 47 Deg to CA mag band 197.05 - 197.60 : FOL Foliated, 43 Deg to CA 198.05 - 199.00 : FOL Foliated, 20 Deg to CA							
199.90	201.80	MD, Mafic Dike dark grey, fine grained, broken lower contact. Structure 201.70 - 201.80							

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From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
201.80	215.50	GAB, Gabbro grey in colour, moderately foliated to sheared, alternating sections showing crowded millimetric-sized feldspar phenocrysts, sharp lower contact with mafic dyke below at 43 deg to the LCA. Alteration 201.80 - 203.50 :MAG Magnetite, P Pervasive, S Strong Structure 201.80 - 215.50 : FOL Foliated, 35 Deg to CA 206.80 - 210.50 : SHR Shear, 45 Deg to CA							
215.50	217.38	MD, Mafic Dike very dark grey, aphanitic, homogenous texture							

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Detailed Lithology		Assay Data							
From (m)	To (m)	Lithology	Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
217.38	252.50	UM, Ultramafic	PG07838	239.00	239.50	0.50	0.0025	0.0080	0.0040
		dark grey, medium grained, foliated to locally sheared, anhedral to subhedral pyroxene crystals throughout, periodically fractured, chloritic slickensides, mineralized zone ( diss. Po ranging tr to 1.5%f) rom 243.70 to 247.60m ,modified by numerous mafic dykes.	PG07839	239.50	240.00	0.50	0.0025	0.0080	0.0040
		Mineralization	PG07841	240.00	240.50	0.50	0.0050	0.0080	0.0060
		245.00 - 245.30 : PO Pyrrhotite, DIS Disseminated, 2%	PG07842	240.50	241.00	0.50	0.0070	0.0100	0.0070
		238.60 - 240.46 : PO Pyrrhotite, DIS Disseminated, 0.5%	PG07843	243.00	243.63	0.63	0.0025	0.0025	0.0070
		247.00 - 247.40 : PO Pyrrhotite, DIS Disseminated, 1%	PG07844	243.63	244.00	0.37	0.0025	0.0050	0.0080
		243.70 - 244.20 : PO Pyrrhotite, DIS Disseminated, 1%	PG07846	244.00	244.50	0.50	0.0120	0.0130	0.0090
		246.00 - 246.30 : PO Pyrrhotite, DIS Disseminated, 3%	PG07847	244.50	245.00	0.50	0.0100	0.0060	0.0090
		Alteration	PG07848	245.00	245.50	0.50	0.0070	0.0025	0.0080
		250.38 - 251.95 :Q Quartz, P Pervasive, M Moderate	PG07849	245.50	246.00	0.50	0.0060	0.0050	0.0100
		250.38 - 251.95 :EP Epidote, P Pervasive, M Moderate	PG07850	246.00	246.50	0.50	0.0190	0.0090	0.0100
		246.38 - 249.27 :MAG Magnetite, H Patchy, M Moderate	PG07851	246.50	247.00	0.50	0.0025	0.0025	0.0060
		246.38 - 249.27 :Q Quartz, P Pervasive, M Moderate	PG07852	247.00	247.50	0.50	0.0050	0.0070	0.0080
		246.38 - 249.27 :EP Epidote, P Pervasive, S Strong	PG07853	247.50	248.00	0.50	0.0050	0.0050	0.0070
		Structure	PG07854	248.00	248.50	0.50	0.0025	0.0050	0.0070
		238.60 - 240.46							
		238.60 - 240.46							
		246.38 - 249.27							
		MINOR INTERVALS:							
		Minor Interval:							
		227.48 - 228.53 MD, Mafic Dike							
		lower contact at 70 deg to the LCA							
		Minor Interval:							
		230.2 - 230.82 MD, Mafic Dike							
		irregulat upper and lower contacts at 80 deg and 52 deg to the LCA							
		Minor Interval:							
		233.64 - 234.14 MD, Mafic Dike							
		brecciated upper contact at 50 deg to the LCA, sheared lower contact at 54 deg to the LCA							
		Minor Interval:							
		236.61 - 237.39 MD, Mafic Dike							
		irregular upper contact at 40 deg to the LCA., broken lower contact at 68 deg to the LCA							
		Minor Interval:							
		237.7 - 238.39 MD, Mafic Dike							
		brecciated and sharp upper contact at 53 deg to the LCA., abrupt lower contact at 55 deg to the LCA.							
		Structure							
		238.00 - 238.20							

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From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
252.50	281.94	GAB, Gabbro grey in colour, predominantly phencrystic - "snowflake" variety, from 274.3 to 281.94 the core is broken and fractured and contains carbonate healed fractures, nil sulphides							
281.94	281.95	EOH, End of Hole							

## Samples

Sample Number	From (m)	To (m)	Ni%	Cu%	Co%
Sample Type	ASSAY				
PG07838	239.00	239.50	0.0025	0.0080	0.0040
PG07839	239.50	240.00	0.0025	0.0080	0.0040
PG07841	240.00	240.50	0.0050	0.0080	0.0060
PG07842	240.50	241.00	0.0070	0.0100	0.0070
PG07843	243.00	243.63	0.0025	0.0025	0.0070
PG07844	243.63	244.00	0.0025	0.0050	0.0080
PG07846	244.00	244.50	0.0120	0.0130	0.0090
PG07847	244.50	245.00	0.0100	0.0060	0.0090
PG07848	245.00	245.50	0.0070	0.0025	0.0080
PG07849	245.50	246.00	0.0060	0.0050	0.0100
PG07850	246.00	246.50	0.0190	0.0090	0.0100
PG07851	246.50	247.00	0.0025	0.0025	0.0060
PG07852	247.00	247.50	0.0050	0.0070	0.0080
PG07853	247.50	248.00	0.0050	0.0050	0.0070
PG07854	248.00	248.50	0.0025	0.0050	0.0070