

Hole Number: ES08-133

Units: METRIC

Project Name: Norway - Espedalen	Primary Coordinates Grid: UTM84-32N	Destination Coordinates Grid: UTM:	Collar Dip: -80.00
Project Number: 201	North: 6801028.00	North: 61.34	Collar Az: 230.00
Location: Surface	East: 535986.00	East: 9.67	Length: 281.11 (m)
	Elev: 949.00	Elev: 949.00	Start Depth: 0.00 (m)
Date Started: Jan 25, 2008	Collar Survey: N	Plugged: N	Contractor: Arctic Drilling A/S
Date Completed: Feb 04, 2008	Multishot Survey: N	Hole Size: BQ	Core Storage: tyristrand
Logged By: awnor	Pulse EM Survey: N	Casing: Left in Hole	Final Depth: 281.11 (m)

Comments: ES08-133 is intended to intercept mineralization approximately 80-100 meters down-dip of ES2005-28 on L12150E.

## Results:

No mineralization or any samples taken this hole.

Hole abandone at 281.1m because drill encountered a 3m cavity.

Lost core from 277.8-281.1m

## Sample Averages

Detailed Lithology		Assay Data							
From (m)	To (m)	Lithology	Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
0	10.15	CAS, Casing							
10.15	54.04	ANOR, Anorthosite Anorthosite.  Fine grained. light grey to v. light green. Non-magnetic. Relatively homogenous mineral distributions. Hybrid or mixed anorthosite with some dirty, light green colouration throughout. Mainly plagioclase with minors of chlorite, sericite and occassionally whisps of fuchsite. The unit is mainly moderately to well foliated and in some locations almost massive. Foliations angles are variable however predominantly between 75-85 dtca. Unit is crosscut by mafic dykes (see sub-litho). Not mineralized. Local dm-wide grey silicified sections quartz filled fractures.  MINOR INTERVALS: Minor Interval: 10.15 - 13.83 MD, Mafic Dike Green-light green. Fg. Homogenous with weak foliaton @75-80 dtca. Not mineralization. V locally cm sized sinistral offsetting almost perpendicular to foliation plane. NOT mineralized. Non magnetic. No upper contact. Lower contact is gradation over 3 cm.							

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From (m)	To (m)	Lithology	Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
54.04	59.47	MD, Mafic Dike Green-dark green. Fg. homogenous and almost massive. v weak foliation @ ~80 dtca. Shrp irregular upper and lower contact with anorthosite. Not mineralized. Non-magnetic. Thin sliver of anorthosite noted in sub-litho. Structure 58.12 - 59.47 Strongly faulted core at lower contact with anorhosite. Chloritized. MINOR INTERVALS: Minor Interval: 57.84 - 58.12 ANOR, Anorthosite This sliver of anorthosite							

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From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
59.47	150.43	<p>ANOR, Anorthosite</p> <p>Fine and coarse grained. White to light grey green. Relatively homogenous on small scale with greenish, more chloritic patches. Mottled appearance between grey and green (mixed hybrid unit). Strongly foliated at high angles (~80+) degrees with undulating or lensoidal fabric in strongly deformed interval. Occasional lighter coloured, silicified dm-wide qtz breccia veinlets. Not mineralized. Appearance of ~3-5% mm-sized, bright green, fuchsite alteration whisps. Unit is crosscut by several m wide mafic dykes as well as 2% &lt;0.10m very thin mafic dykes (or dykelets?).</p> <p>Structure</p> <p>122.37 - 128.45 : FOL Foliated, 70 Deg to CA strongly deformed and sheared interval between two mafic dykes. Strong chloritic alteration of anorthosite and local grey silicification. Occasional v. thin (&lt;1dm) bx sections with quartz flooding</p> <p>139.10 - 139.30 Thin brecciated section with anorthositic fragments and predominantly a quartz filled matrix and minor hematite alteration (similar to that intersected in 132).</p> <p>MINOR INTERVALS:</p> <p>Minor Interval: 72 - 72.61 MD, Mafic Dike Light green, fg, homogenous. Moderately foliated @45-50 dtca. Sharp upper and lower contacts @ 45-50 dtca.</p> <p>Minor Interval: 87.82 - 88.95 MD, Mafic Dike Grey green, fg. Homogenous. Very sharp, irregular upper and lower contacts. Not mineralized/magnetic. Two, 2-3cm sized, sub-hedral/euhedral grains of feldspar inclusions.</p> <p>Minor Interval: 89.71 - 90.54 MD, Mafic Dike Grey green, fg. Homogenous. Very sharp, irregular upper and lower contacts. Not mineralized/magnetic. Same as above mafic dyke. No inclusions.</p> <p>Minor Interval: 105.65 - 105.95 MD, Mafic Dike Green-dark grey. Fg. homogenous. semi-massive. weakly foliated ~50-55 dtca. Sharp upper and lower parallel to foliation. No mineralization.</p> <p>Minor Interval: 106.83 - 109.5 MD, Mafic Dike Grren. fg. Moderately foliated @70 dca. Homogenous. not minealized. Sharp upper and lower contacts @75-80 dtca.</p> <p>Minor Interval: 110.58 - 112.56 MD, Mafic Dike Exactly as above. Grren. fg. Moderately foliated @70 dca. Homogenous. not minealized. Sharp upper and lower contacts @75-80 dtca.</p>							

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		<p>MINOR INTERVALS:</p> <p>Minor Interval: 113.51 - 115.52 MD, Mafic Dike Grren to light green.. fg. Moderately foliated @70 dca. Homogenous. not minealized. Sharp upper and lower contacts @~75 dtca.</p> <p>Minor Interval: 117.02 - 122.37 MD, Mafic Dike Grren to light green. fg. Moderately foliated @70 dca. Homogenous. not minealized. Sharp upper and lower contacts @75-80 dtca.</p> <p>Minor Interval: 128.4 - 131.23 MD, Mafic Dike Gark green. Fg. Homogenous. Moderately foliated ~70 dtca. Sharp upper contact @90 dtca and faulted lower ct. Strong chlorite and waxy light green epidote alteration throughout. Local hematitic whisps parallel to foliation. not Mineralized.</p> <p>Minor Interval: 140.72 - 141.68 MD, Mafic Dike Same as above dyke: Dark green. Fg. Homogenous. Moderately foliated ~70 dtca. Sharp upper contact @90 dtca and faulted lower ct. Strong chlorite and waxy light green epidote alteration throughout. Local hematitic whisps parallel to foliation. not Mineralized. Very ocal hematitic whisps parallel to foliation. not Mineralized.</p> <p>Minor Interval: 143.25 - 143.67 MD, Mafic Dike Green, fg, homogenous. Moderately foliated @65 dtca. Moderate to strong epidote and chlorite alteration that is often parallel to foliation. Sharp, irregular upper and lower contacts. Not mineralized.</p>							
150.43	156.18	<p>MD, Mafic Dike Green, fg, homogenous mafic dyke. Moderately foliated @70 dtca. Upper and lower contacts are parallel to foliation. Not mineralized. Moderate chlorite and epidote alteration. Anorthositic host rock is strongly deformed/sheared at upper and lower contact tp intrusion.</p>							

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156.18	173.57	<p>ANOR, Anorthosite</p> <p>Fine and coarse grained. White to light grey green. Relatively homogenous on small scale with greenish, more chloritic patches. Mottled appearance between grey and green (mixed hybrid unit). Strongly foliated and foliated with varying foliation angles and undulating or lensoidal fabric. Occasional lighter coloured, silicified dm-wide qtz breccia veinlets. Not mineralized.. Minor fuchsite alteration as v. thin whisps. Unit os crosscut by several &lt;1m wide mafic dykes (see sub-litho). Locally feldspar rich sections have a v. light brown-grey colouration.</p> <p>MINOR INTERVALS:</p> <p>Minor Interval: 160.09 - 161.58 MD, Mafic Dike Light green. Fg, homogenous. Moderately foliated ~70 dtca. Abundant epidote alteration minor chlorite alteration. Not mineralized. Sharp, high angle, irregular upper and lower contacts. Minor Interval: 163.13 - 163.87 MD, Mafic Dike Same as above. Light green. Fg, homogenous. Moderately foliated ~70 dtca. Abundant epidote alteration minor chlorite alteration. Not mineralized. Sharp, high angle, irregular upper and lower contacts. Minor Interval: 166.22 - 166.68 MD, Mafic Dike Green. fg, homogenous. Highyl foliated and variable high angle foliation angles. Not mineralized. Minor Interval: 172.25 - 172.94 MD, Mafic Dike Light green, fg, homogenous, moderately foliated @75-85 dtca. Not mineralized. Sharp, variable upper and lower contacts.</p>							
173.57	197.91	<p>MD, Mafic Dike</p> <p>Light green-green. Fg, homogenous moderately foliated @80+ degrees. Not mineralized. Gradational and strongly epidotized upper contact. ~5% 3-5mm plagioclase-rich bands. Chilled contacts over 0.5m and centre of dyke is very similar to a sheared fg-mg gabbro.</p>							
197.91	215.67	<p>ANOR, Anorthosite</p> <p>White-Grey-Beige-Green in colours. Fg. Very heterogenous/mixed, strongly deformed and bx rock unit. Highly variable foliation angles (however predominantly above 70 dtca). Dm to m wide. 0.1-0.5m dark grey and weakly bx quartz-rich sections. Abundant plagioclase/amphibole as well as minor chlorite/epidote/quartz.</p>							
215.67	236.90	<p>MD, Mafic Dike</p> <p>Light green-green. Fg with mg amphiboles and plag towards centre. Homogenous strongly deformed @80+ degrees. Not mineralized. Gradational and strongly epidotized upper contact. ~5% 3-5mm plagioclase-rich bands. Chilled contacts over 0.5m and centre of dyke is very similar to a sheared fg-mg gabbro. Weakly faulted and gaugy lower cotact.</p>							

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From (m)	To (m)	Lithology	Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
236.90	281.10	ANOR, Anorthosite Anorthosite/Basement Rocks (mixed hybrid rock unit not normally as mafic as typical basement rocks) Fine and coarse grained. White to light grey green. Relatively homogenous on small scale with greenish, more chloritic patches. Mottled appearance between grey and green (mixed hybrid unit). Strongly foliated and foliated with varying foliation angles and undulating or lensoidal fabric. Commonly >70 dtca. Occasional lighter coloured, silicified dm-wide qtz breccia veinlets. Not mineralized.. Minor fuchsite alteration as v. thin wisps.							
281.10	281.11	EOH, End of Hole End of Hole. Hole abandoned due to 3m cavity.							