DRILL LOG

Hole No.: E-50-1
Location: 49.90 S. + 6.88 E.
Crawford Pond
Ice Grid
Coordinates

Angle: -41°
Bearing: N. 72° W.
Depth: 565'
Elevation: 120' above sea level
Logged by: D. E. Wyke
11/1/61 to 11/30/61

Drill Hole Data:

0' 0"	- 1' 0"	Overburden - no core
1' 0"	- 77' 0"	AX casing and casing bit left in hole by request
1' 0"	- 77' 0"	Reamed for AX casing
1' 0"	- 45' 6"	AX core
45' 6"	- 75' 0"	Sand and boulders - no core except of boulders
75' 0"	- 565' 0"	AX core 12 hours cementing and drilling out cement in caving zones.

Depth		Lithology
0' 0"	- 1' 0"	Overburden, no core
1' 0"	- 27' 9"	Schist: quartz, biotite; strong pegmatization; occasional disseminated pyrrhotite; 17' 2" - 17' 9" biotite schist.
27' 9"	- 38' 2"	Pegmatite: quartz with abundant biotite lower 5'; quartz veins present.
38' 2"	- 45' 6" plus	Schist: quartz, biotite; disseminated garnet.
45' 6"	- 75' 0" minus	Schist: chlorite; serpentine present; minor calcite.
75' 0"	- 90' 8"	Pegmatite: quartz, biotite.
90' 8"	- 102' 5"	Schist: quartz, biotite; schistosity angle 60o.
102' 5"	- 138' 2"	Schist: quartz, biotite; schistosity angle increases to 80°; fine-grained; calcite on fractures.
138' 2"	- 142' 2"	Schist: hornblend, biotite; minor chlorite and serpentine.
142' 2"	- 146' 6"	Schist: quartz, biotite; angle 80°.
146' 6"	- 148' 10"	Schist: garnet; limey.
148' 10"	- 153' 7"	Pegmatite: quartz, biotite, muscovite.
153' 7"	- 157' 0"	Schist: quartz, biotite; calcite on fractures.
157' 0"	- 164' 2"	Altered dolomite: dolomite, serpentine; minor garnet; calcite on fractures; top 15" narrow bands of quartz-biotite schist and biotite schist.

Depth	Lithology
164' 2" - 166' 10"	Schist: quartz, biotite; angle 70°.
166' 10" - 169' 3"	Limey schist: calcite, biotite, chlorite; minor garnet.
169' 3" - 173' 5"	Limey schist: garnet; bands of biotite and quartz.
173' 5" - 176' 6"	Limey schist: micaceous; narrow bands of hornblend schist.
176' 6" - 188' 4"	Schist, limey: garnet; numerous bands of calcite; bands of hornblend and serpentine; 183' 5" - 184' 7" chlorite, serpentine, hornblend, angle generally 75° to 80°.
188' 4" - 191' 8"	Schist: quartz, biotite; calcite on fractures; abundant biotite; 191' 0" - 191' 8" marble.
191' 8" - 206' 1"	Schist: quartz, biotite; calcite on fractures; abundant biotite.
206' 1" - 210' 7"	Marble: impure; mica and garnet present; 208' 3" - 208' 7" garnet schist.
210' 7" - 211' 11"	Schist: garnet, limey.
211' 11" - 213' 0"	Marble and dolomite: bands of garnet schist.
213' 0" - 260' 8"	Schist: garnet; narrow bands of quartz and of calcite; narrow bands of biotite; abundant serpentine present; angle generally 60° to 80°.
260' 8" - 262' 11"	Schist: quartz, biotite; calcite veins.
262' 11" - 272' 3"	Schist: quartz, biotite, chlorite; minor graphite; minor calcite veins; angle 60° to 70°.
272' 3" - 313' 5"	Schist: quartz, biotite, chlorite; graphite to 2% parallel to schistosity; serpentine localized in 2" to 8" zones; decrease in graphite and increase in disseminated garnet below 285'; angle variable but generally 65°; occasional pyrrhotite and copper parallel to schistosity in serpentine zones.
313' 5" - 322' 4"	Schist: dominantly mica and garnet; veins of calcite; serpentine present.
322' 4" - 341' 10"	Limey schist: serpentine, garnet, calcite veins; calcite on fractures; graphite to 2%; 1" to 2" quartz veins; schistosity angle generally 70°.

Depth	Lithology
341' 10" - 346' 0"	Schist: hornblend; minor garnet; calcite on fractures.
346' 0" - 348' 3"	Schist: quartz, biotite; fine-grained.
348' 3" - 349' 4"	Pegmatite: quartz, biotite.
349' 4" - 351' 5"	Altered gabbro: hornblend, biotite, pyroxene, basic feldspar; 6" band quartz-biotite schist in center of section.
351' 5" - 355' 1"	Schist: quartz, biotite, chlorite; minor graphite; garnet parallel to schistosity; minor pyrite parallel to schistosity; schistosity angle generally 75°.
355' 1" - 356' 5"	Schist: quartz, hornblend, biotite.
356' 5" - 361' 4"	Schist: quartz, biotite, chlorite; serpentine; finely banded; garnet and minor pyrite parallel to schistosity; minor graphite; angle generally 75°; 360' 5" - 361' 4" hornblend-biotite schist.
361' 4" - 366' 3"	Schist: quartz, biotite; 361' 4" - 361' 10" biotite schist.
366' 3" - 368' 4"	Marble or dolomite: pegmatized; narrow vein of pyrrhotite at 366' 4".
368' 4" - 370' 11"	Schist: quartz, biotite.
370' 11" - 375' 12"	Schist: hornblend, biotite; biotite-rich lower 6"; calcite and pyrite in fractures; 371' 9" - 372' 2" quartz vein;
375' 12" - 380' 2"	Schist: quartz, biotite, serpentine; minor chlorite; pyrite on fractures; 377' 10" - 380' 2" schist contains sulfides to 25% including high copper; 379' increase in serpentine and biotite with decrease in quartz.
380' 2" - 408' 0"	Peridotite: anthophyllite, chlorite, biotite, pyroxene; biotite-rich top 6"; sulfides generally less that 15%: 380' 2" - 384' 0" sulfides 15%; 384' 0" - 392' 1" sulfides 15%, increase in chlorite; 392' 1" - 393' 8" sulfides 25%, increase in pyroxene; 393' 8" - 408' 0" sulfides 10% to 15%.
408' 0" - 411' 10"	Pegmatite: quartz, biotite; biotite-rich top 10"; generally 10% sulfides;

Depth	Lithology
411' 10" - 413' 0"	Peridotite: pyroxene, chlorite; sulfides 15%.
413' 0" - 415' 3"	Pegmatite: quartz, biotite; 5% sulfides top 12".
415' 3" - 416' 8"	Peridotite: pyroxene, chlorite, minor anthophyllite biotite-rich lower 1"; sulfides 10% to 15%.
416' 8" - 418' 11"	Pegmatite: quartz, biotite; sulfides 2% to 5%.
418' 11" - 420' 8"	Peridotite: pyroxene, chlorite; biotite-rich top and bottom; sulfides 5% to 10%.
420' 8" - 423' 2"	Pegmatite: quartz, biotite; sulfides 2%.
423' 2" - 426' 4"	Quartz: barren.
426' 4" - 428' 0"	Peridotite: pyroxene, chlorite; biotite-rich top and bottom; sulfides 2%.
428' 0" - 429' 6"	quartz: barren.
429' 6" - 430' 4"	Peridotite: pyroxene, chlorite, biotite;barren.
430' 4" - 432' 4"	Pegmatite: quartz, biotite.
432' 4" - 433' 1"	Peridotite: talc, anthophyllite;sulfides 20%.
433' 1" - 434' 8"	Pegmatite: quartz, biotite; sulfides 2% to 3%.
434' 8" - 435' 5"	Peridotite: talc, chlorite, anthophyllite; sulfides 10% to 15%.
435' 5" - 437' 3"	Pegmatite: quartz, biotite; inclusion of peridotite parallel to core axis with sulfides 5% to 10%.
437' 3" - 439' 6"	Peridotite: talc, chlorite, anthophyllite; sulfides 20% to 25%.
439' 6" - 440' 1"	Pegmatite: quartz, biotite; sulfides 2% to 4%.
440' 1" - 442' 10"	Peridotite: talc, chlorite, anthophyllite; sulfides to 15%.
442' 10" - 445' 6"	Pegmatite: sulfides 1%.
445' 6" - 452' 4"	Peridotite: talc, chlorite, anthophyllite; 10% sulfides to 452' 0"; lower 4" biotite-rich and barren.
452' 4" - 463' 0"	Peridotite: chlorite, pyroxene; sulfides 15% to 20%.

Depth	Lithology
463' 0" - 471' 3"	Peridotite: chlorite, anthophyllite; sulfides 5%; 463' 0" - 463' 3" quartz-biotite pegmatite; 464' 2" - 464' 7" quartz-biotite pegmatite; 465' 4" - 466' 6" quartz-biotite pegmatite; 469' 2" - 469' 8" quartz-biotite pegmatite; 469' 8" - 471' 3" biotite-rich.
471' 3" - 482' 7"	Peridotite: talc, chlorite; sulfides 2% to 5%.
482' 7" - 493' 3"	Quartz: top 6" contains possible NiS.
493' 3" - 499' 5"	Gabbro: fine-grained; biotitic; very minor sulfide: 493' 7" - 493' 11" quartz vein; 494' 5" - 494' 7" quartz vein; 498' 2" - 499' 0" quartz-biotite pegmatite.
499' 5" - 511' 6"	Peridotite: chlorite, pyroxene; sulfides to 50%; 499' 5" - 504' 8" sulfides 50% with high copper; 504' 8" - 507' 7" sulfides 25%; 507' 7" - 508' 7" sulfides 30%; 508' 7" - 509' 3" quartz vein with biotite; 509' 3" - 511' 6" sulfides 10%.
511' 6" - 515' 10"	Pegmatite: quartz, biotite.
515' 10" - 516' 9"	Gabbro: fine-grained and biotitic.
516' 9" - 518' 8"	Pegmatite: quartz, biotite.
518' 8" - 530' 10"	Peridotite: fine-grained with biotite and chlorite except for top 15" of coarse-grained chlorite peridotite; generally less than 2% sulfides finely disseminated; 520' 8" - 521' 3" sulfides 5%; 524' 8" - 525' 8" quartz-biotite schist with veins of pyrrhotite and high copper; 530' 2" - 530' 5" quartz vein with 2% sulfide; lower 18" of section increase in biotite.
530' 10" - 538' 2"	Gabbro: fine-grained; biotitic; minor sulfide.
538' 2" - 540' 6"	Schist: mica and quartz; finely divided sulfides to 3% parallel to schistosity.
540' 6" - 541' 6"	Gabbro: fine-grained; minor sulfides.
541' 6" - 544' 5"	Schist: quartz, biotite; fine-grained; contains 2% pyrrhotite parallel to schistosity; pyrite on fractures.

Depth	Lithology
544' 5" - 565' 0"	Schist: quartz, biotite; some chlorite and serpentine; minor graphite; minor sulfide (5%) to 546' 3" with high copper; 550' 0" - 552' 10" quartz-biotite pegmatite; schistosity angle 45° to core axis.

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Total Depth 565' 0"

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