DIAMOND DRILLING

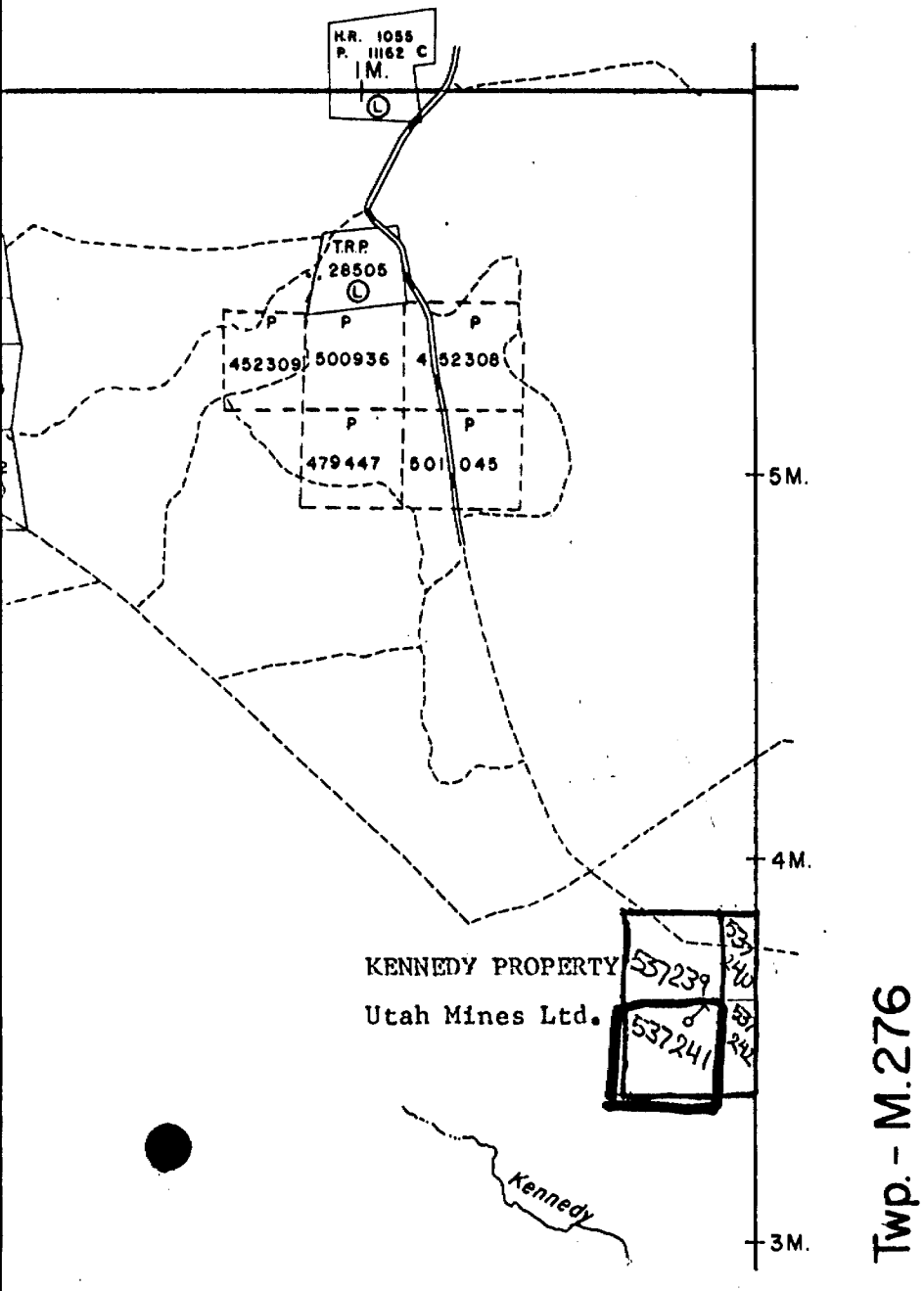
TOWNSHIP: ADAMS

REPORT NO.: 15

WORK PERFORMED BY: UTAH MINES LIMITED

CLAIM NO.	HOLE NO.	FOOTAGE	DATE	NOTE
P 537241	1	497.0	Dec/79	(1)

NOTES: (1) # 32-80



Twp. - M.276

THE TOWNSHIP
OF

ADAMS

DISTRICT OF
COCHRANE

PORCUPINE
MINING DIVISION

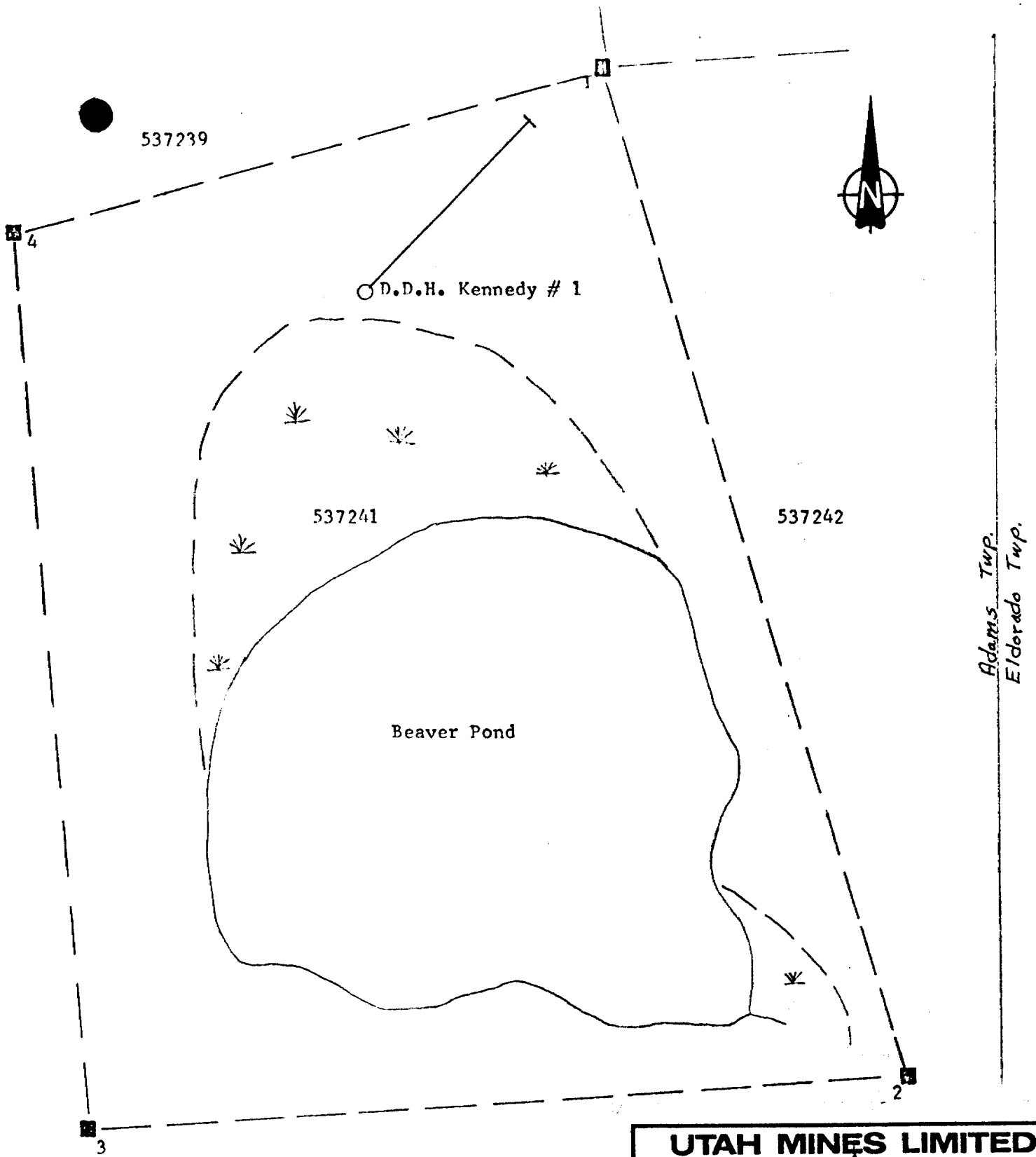
SCALE: 1-INCH = 40 CHAINS

~~#73~~

#32-80

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.



UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

DIAMOND DRILLING

KENNEDY PROPERTY

ADAMS TOWNSHIP

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
						OF

SCALE 0 200 400 FEET

HOLE NO. KENNEDY-1 | PROJECT: KENNEDY | PAGE NO: 1 OF 9

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: DEC. 11, 1979 | REF. TO CLAIM CORNER:

COORDINATES: 12N 4150W N. E. | DATE FINISHED: DEC. 13, 1979 | SCALE: 1": 10'

INCLINATION: -45° | BEARING: N45°E | TOTAL DEPTH: 497' | LOGGED BY: D. McIVOR

SECTION	ALTERATION: SERP.	CHLORITE	CARBONATE	TALC	FRACTURING	MINERAL	GEOLOGY	COMMENTS / DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
								CASING CLEARED 3' ABOVE GROUND. 0' @ 45° 497' @ 51° (corrected)	99%							

DESCRIPTIVE GEOLOGY

0 — 10 — 20 — 30 — 40 — 50

0'-37' OVERBURDEN

37'-41.5' CHERTY RHYOLITE
- aphanitic, cherty felsic volcanic (rhyolite) · slight sugary texture, possibly recrystallized
- predominantly massive, ȼ a few slightly schistose bands (at 50°-60° to core box axis)
- highly fractured, (2-3 fr./inch) at random orientations, ȼ calcite, chlorite & epidote fracture filling
- sulphides present to 2% of rock as Py-Po in the form of small blebs (to 1/8"), fracture coatings and v.f.g. diss mineralization · neg Ni test on mineralized areas. · weakly magnetic around Po min.

41.5'-52.5' CHLORITE - CARBONATE SCHIST
- moderately schistose chlorite-carbonate altered mafic-ultramafic volcanic rock.
- schistosity strongly at 65°-70° to core box axis, however areas of minor folding has occurred
- chlorite alteration is extremely strong throughout rock. ȼ carbonate (calcite & magnesite) present as blebs & seams parallel to schistosity, as well as small semi-spherical blebs, possibly amygdaloidal in origin.
- fractures are closely spaced, randomly oriented and predominantly calcite filled.
- a few brecciated cherty rhyolite bands (thin) also occur · possibly an original lapilli tuff.
- at 48' - very thin (<1/16") graphitic band or seam parallel to schistosity
- sulphides present in trace amounts as thin Po blebs along schistosity planes, ȼ occasional v small Pn present as indicated by +ve Ni test. very weakly magnetic in areas of Po mineralization.

52.5'-51.5' RHYOLITE
- massive felsic volcanic (rhyolite) which has been slightly brecciated by numerous chlorite filled fractures.
- slight sugary texture in quartz present, indicating a recrystallization
- sulphides present to 1% of rock as large blebs of Py as well as v.f.g. diss Py mineralization.
- Very minor Cpy also present, primarily along calcite filled fractures.

51.5'-52.5' DIABASE - small discordant, fine grained diabase dyke · non magnetic. trace v.f.g. diss Py

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
2%			BQ	37 SAM 41.5'	100%
TRACE	46	100%		SAM 46.5	100%
1%		68%			
TR				52.5 SAM	
1%	54			54 55	100%
1%		100%		SAM	
1%					

Alteration columns: NIL; AS F.F. / V. STR.; AS FRAC FILL; NIL — SLTLY SERC.; GRAPH. BAND

HOLE NO. KENNEDY-1
CASING COLLAR ELEV.:
GROUND ELEV.:
COORDINATES: L2N 4150W N: E.
INCLINATION: -45°
BEARING: N45°E

PROJECT: KENNEDY
DATE STARTED: DEC. 11. 1979
DATE FINISHED: DEC. 13. 1979
TOTAL DEPTH: 497'

REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY: D. McIVOR

SECTION: 60 – 120

ALTERATION: SERP — MIN-NIL, MINOR, NIL; CHLORITE — MIN-NIL, MINOR BECOMING MOD. ALONG FRACTURES, ALONG FRA...; CALCITE — STR-ASSOC, STRONG AS BLEBS AND SEAMS, AS FRACT FILL; TALC — STR-NIL, VERY STRONG, NIL

COMMENTS:

AVE CORE REC'Y / HOLE

DESCRIPTIVE GEOLOGY

53.5'-54' CHLORITE SCHIST

graph. - fg-aphanitic, strongly schistose, chlorite altered mafic volcanic rock
- occasional thin seams and bands of graphite oriented parallel to schistosity at 70°-80° to core box axis
- at 53.5, a 1" quartz-carbonate vein. - minor sericite along schistosity planes.
- occasional small vugs occur throughout rock. sulphides present to 1% as thin seams and blebs of Po (0.75%) & Pn (0.25% - as indicated by strong +ve Ni test).

54-55' CHERTY DACITE

- fg-aphanitic felsic-int. volcanic, massive, c̄ numerous closely spaced, randomly oriented calcite filled fractures
- sulphides present to 1% as fg diss Py, minor Po.

55'-62' TALC-TREMOLITE-CARBONATE SCHIST

- strongly schistose talc-tremolite-carbonate altered ultramafic rock - schistosity at 70°-80° to core box axis
- talc alteration is strong throughout rock. c̄ blebs and seams of carbonate (primarily calcite) oriented parallel to schistosity - tremolite present as small elongated crystals throughout rock, and form a snowflake type texture in places. - fractures average 3"-4" apart, and are parallel to schistosity & calcite filled
- sulphides present as 1% of rock in the form of small blebs & seams oriented parallel to schistosity, and are Po = 0.5%. Pn = 0.5% as indicated by strong +ve Ni test. - weakly magnetic in Po mineralized areas.

62'-63' GRAPHITE

folding - thin, slightly schistose band of predominantly graphite, c̄ a few thin seams of mafic volcanic rock and calcite.
- schistosity at 60°-70° to core box axis. - a few small thin felsic fragments also visible
- sulphides present to 3% of rock as thin seams and blebs parallel to schistosity in the forms of Py ≈ 2.0%. Po ≈ 1% and trace amounts of Cpy. - neg Ni test - magnetic (due to Po), reading 0.5 on Mag Sus

bio rich bands

63'-101' TALC-CARBONATE SCHIST (ORIGINALLY ULTRAMAFIC ROCK)

- moderate to strongly schistose talc-carbonate altered ultramafic volcanic rock.
- schistosity is predominantly at 70°-80° to core box axis, however areas of intense folding do occur.
- talc alteration is strong throughout rock
- carbonate is present as both calcite & magnesite, in the form of thin blebs and seams oriented parallel to schistosity

qtz carb veins

- both talc & carbonate alteration increase in intensity towards 101', with magnesite becoming the predominant carbonate mineral
- occasional thin chloritized and serpentinized bands occur throughout unit.
- a few small tremolite crystals are scattered throughout unit.
- fractures are very closely spaced and are primarily randomly oriented, although one fracture set parallels schistosity. carbonate (in the form of calcite & magnesite) fracture filling common, as well as chlorite alteration along fractures.
- occasional biotite rich bands occur throughout rock (biotite is v.f.g., light brown & extremely soft)

folding

- occasional thin quartz-carbonate vein cut rock parallel to schistosity.
- non-magnetic
- overall sulphide content ≈ 1% in the form of thin seams and blebs along schistosity planes, small specks scattered throughout rock, and some minor fg diss mineralization. - occur as Py ≈ 0.5%. Po ≈ 0.25% and minor amounts of Pn (as indicated by +ve Ni test) and Cpy

101'-174' GRANODIORITE?

- massive fine grained to medium grained felsic intrusive rock, composed of approximately 25% mafics, 10% quartz and 65% feldspar (primarily plag c̄ minor Kspar) - possibly a feldspar gabbro
- fine grained chill margin towards 101' indicative of intrusive origin.
- fractures are irregularly spaced (av. 6" apart) and are randomly oriented.
- calcite is the predominant fracture filling mineral. c̄ occasional quartz, hematite and siderite fracture filling
- minor chlorite alteration of mafics also occurs along fractures.
- overall sulphide content ≈ 0.5% primarily as small scattered Py cubes and blebs, and fine grained diss. Py throughout rock. - often oxidized to a brown tarnish colour.
- occasional phases where siderite (brownish-orange carbonate) present throughout rock i.e. interstitial to plag minerals.
- at 124, a 1.5' band of highly brecciated quartz-hematite-limonite rich felsic rock.
- occasional small vuggy sections occur throughout unit, and are usually associated c̄ an increase in hematite - calcite mineralization.

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
1% / 3%	64	100%	BQ	SAM 68 / 69 SAM		
	70	100%		SAMPLE 73		
	77	100%				
1%	85	85%		SAMPLE 83		
	95	100%		SAMPLE 93		
	107	100%		SAMPLE 101		
0.5%	113	100%				
	116	100%				

HOLE NO. KENNEDY-1 | PROJECT: KENNEDY | PAGE NO: 3 OF 9

CASING COLLAR ELEV.; GROUND ELEV.; | DATE STARTED: DEC. 11, 1979 | REF. TO CLAIM CORNER:

COORDINATES: L2N 4150W N. E. | DATE FINISHED: DEC. 13, 1979 | SCALE: 1" = 10'

INCLINATION: -45° BEARING: N45°E | TOTAL DEPTH: 497' | LOGGED BY: D. McEVOR

SECTION	ALTERATION: SERP.	ALTERATION: CHLORITE	ALTERATION: CALCITE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
120	NIL	ALONG FRACTURES	AS FRACTURE FILLING	NIL	/	Py		qtz. vein 101'-174' cont - at 114', large, oxided Py cubes occur along limonite rich fracture surface. - occasional quartz veins up to 2" thick cut rock at random orientations brecciated qtz-kam rich felsic rock				100%	BQ			
					X						186					
130					/	Py						100%				
					/						135					
140					+			occasional vugs		0.5%		60%				
					/	Py Sph					145					
150					/			qtz vein				100%				
					/	Py					155					
160					/							100%				
					/						165					
170					/	Py		174'-180' CHLORITE CARBONATE SCHIST - slightly schistose, chlorite-carbonate altered matic-ultramatic volcanic rock. - schistosity weakly developed at 70°-80° to core box axis - chlorite alteration extremely strong throughout rock, & large blebs and seams of carbonate in the form of siderite, calcite & magnesite. - fractures are irreg spaced (av 2-3" apart) and predominantly parallel to weak schistosity - occasional talc & sericite along fractures - at 177': 4" band of brecciated cherty rhyolite - sulphides present in trace amounts as small Py (partially oxidized) blebs & cubes - acq Ni test. - gradational contact & more talcose altered ultramatic		TR	177	100%				
180																

WEAK

HOLE NO. KENNEDY - 1 | PROJECT: KENNEDY | PAGE NO: 4 OF 9

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: DEC. 11, 1979 | REF. TO CLAIM CORNER:

COORDINATES: L2N 4+50W N. E. | DATE FINISHED: DEC. 13, 1979 | SCALE: 1" = 10'

INCLINATION: -45° | BEARING: N45°E | TOTAL DEPTH: 497' | LOGGED BY: D. McIVOR

SECTION	ALTERATION: SERP	ALTERATION: CHLORITE	ALTERATION: CALCITE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY	COMMENTS: DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
180	NIL	WEAK TO MINOR	STRONG	VERY STRONG				180' - 204.5' TALC-CHLORITE-CARBONATE ALTERED ULTRAMAFIC - massive to very slightly schistose talc-chlorite-carbonate altered ultramafic rock - talc alteration is predominant, and is extremely strong throughout rock - carbonate is present primarily as magnesite (weak HCl reaction) ± some calcite, and occurs as large blebs & seams as well as very small semi-spherical blebs pervasive throughout rock - chlorite alteration is pervasively weak but becomes strong along occasional fractures & bands - fractures are closely spaced and randomly oriented, although one fracture set parrallels very weak schistosity at 70°-80° to core box axis. - magnesite & calcite predominant fracture filling mineralization. - fracture faces often exhibit slickensides. - areas of intense folding are visible (by variations in orientations of weak schistosity and carbonate seams. - gossiferous bands (thin) and semi-hexagonal blebs are common. - occasional minor amounts of kerolite along fractures. - schistosity increases in strength towards contact at 204.5' - overall sulphide ≈ 1.5% in talc forms of 1) small scattered fg blebs & cubes ≈ 0.5% 2) Po ≈ 1% as fg diss mineralization and small blebs and seams usually associated ± carbonate. - very strong +ve Ni test. - unit is non-magnetic		1.5%	181	100%	BQ	180 SAMPLE 190		
190											197	100%		SAMPLE 200		
200								204.5' - 233' TALC - CHLORITE - CARBONATE SCHIST (ALTERATION OF ULTRAMAFIC ROCK) - moderate to strongly schistose talc-chlorite-carbonate altered ultramafic rock. - schistosity predominantly at 60°-70° to core box axis - talc alteration is moderate to strong throughout rock, increasing in intensity towards 233' - chlorite alteration is weak to moderate throughout rock, becoming stronger along occasional bands and seams. - carbonate present primarily as magnesite ± minor calcite, in the form of thin blebs and seams oriented parallel to schistosity, as well as small semi-spherical blebs of calcite scattered throughout rock, (possibly of amygdaloidal origin) - fractures are irreg. spaced and predominantly oriented parallel to schistosity. ± carbonate fracture filling (difficult to distinguish from schistosity planes) - occasional bands and sections of apparent serpentinized ultramafic. - minor small tremolite crystals scattered throughout unit. - from 209.5'-211' concordant fg diabase sill. - overall sulphide content ≈ 3.0% in the forms of fg diss mineralization & small blebs and seams oriented parallel to and along schistosity planes, occurring as Po ≈ 1.5% - occurs primarily as blebs, ± minor fg diss mineralization Py 1% - occurs as small scattered cubes & fg diss mineralization Cpy 0.5% - occurs primarily as small blebs along schistosity planes and along carbonate filled fractures - also trace amounts of Cpy as very small thin blebs along fractures. - slightly magnetic in areas of Po mineralization.		3%	207	100%		SAMPLE 215		
210											217	100%		SAMPLE 225		
220								233' - 233.8' INTERBANDED GRAPHITE-SULPHIDES - thin band of predominantly graphite, ± afew thin sulphide seams & cherty fragments - bedding/schistosity at 70°-80° to core box axis - sulphides present to ≈ 5% as thin blebs and seams/beds in the form of Po - 3%, Py - 1%, Cpy 1% and trace Pn. (+ Ni test) - magnetic. reading 1.1 on Mag Sus. 233.8' - 236' DACITE - fine grained, massive, slightly cherty dacite - afew irreg spaced, randomly oriented carbonate filled fractures, ± minor chlorite alteration of matrix along fracture faces. - sulphides present to 1% as fg diss Po - Py -		5%	227	100%		SAMPLE 233 SAMPLE 233.8		
230								236' - 243.5' GRAPHITE - large, slightly schistose (or thinly bedded?) graphitic zone. ± bedding/schistosity at 70°-80° to core box axis (occasional) slump features are visible) - occasional small cherty bands and fragments oriented parallel to bedding/schistosity - large irregularly shaped calcite blebs & fragments also occur throughout rock cont.		1%	237			236 SAMPLE		
240										5%						

HOLE NO. KENNEDY-1 | PROJECT: KENNEDY | PAGE NO: 5 OF 9
CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: DEC. 11, 1979 | REF. TO CLAIM CORNER:
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INCLINATION: - 45° | BEARING: N45°E | TOTAL DEPTH: 497' | LOGGED BY: D. McIVOR

SECTION: 240 – 300

ALTERATION (SERP. / CHLORITE / CALCITE / TALC):
- SERP.: Nil – Very strong – occasional serp. mafic bands (to 290); V. strong – Nil (290–300)
- CHLORITE: Nil – Minor – Strong along fractures (to 290); Minor – Nil (290–300)
- CALCITE: As fr. fill – As fracture filling (to 290); As fr. fill (290–300)
- TALC: Nil – V. minor – Nil (to 290); Minor – Nil (290–300)

COMMENTS:

DESCRIPTIVE GEOLOGY

232' - 243.5' cont.
- fractures are closely spaced (av < 1" apart) and are randomly oriented, c̄ calcite fracture filling comm.
- from 237.5' - 238.5', small slightly schistose intermediate volcanic band
- overall sulphide content ≈ 5% as large blebs and seams oriented parallel to bedding/schistosity and some minor fg diss mineralization - in the forms of Po ≈ 4%, Py ≈ 0.5%, Cpy 0.5%.
- neg. Ni test, unit is weakly magnetic (due to Po) reading av. : 0.5 on Mag Sus.

243.5' - 256' SERPENTINIZED ULTRAMAFIC
- moderately schistose, very strongly serpentinized ultramafic rock
- light greyish green in colour
- schistosity at 80° to core box axis
- minor chlorite and tremolite alteration also present throughout rock
- fractures are widely spaced, & predominantly parallel to schistosity - calcite & magnesite fracture filling common.
- carbonate is also present as a few thin seams & blebs oriented parallel to schistosity
- overall sulphide content ≈ 5%, as small thin seams and blebs oriented parallel to schistosity and fg diss mineralization, - Po 4%, Py 0.5%, Cpy 0.5%, trace Pn - as indicated by very weak Ni test reaction on a few scattered very small blebs.

256' - 289' DACITE LAPILLI TUFF
- fg-aphanitic dacite matrix, c̄ large felsic (cherty rhyolite) fragments and bands up to 1" wide and 5% of rock
- bedding/schistosity is predominantly at 70°-80° to core box axis, however some areas of minor folding do occur
- predominantly thinly bedded, however more massive appearing sections do occur throughout unit
- fractures are closely spaced, (av 1"-2" apart) and are parallel - semi-parallel to schistosity.
- calcite fracture filling common, c̄ strong chlorite alteration of mafics along fracture faces.
- occasional more mafic bands and seams occur, and are often serpentinized
- fractures occasionally exhibit slickensides, which has affected fracture filling mineralization i.e. giving a semi-fibrous appearance to the mineral.
- overall sulphide content ≈ 7-8%, occuring as
  1) large blebs and seams oriented parallel to bedding
  2) smaller, thin seams oriented parallel to schistosity/bedding
  3) fracture filling and fracture face coating
  4) fine grained disseminated mineralization.
- these sulphides are in the form of Po ≈ 5%, Py ≈ 1%, Cpy ≈ 1%.
- neg Ni test over entire unit
- weakly mag. (due to Po), c̄ an average reading of 0.5 on Mag Sus.

289' - 296' SERPENTINIZED ULTRAMAFIC
- strongly schistose, strongly serpentinized ultramafic rock (i.e. essentially massive serpentine)
- schistosity at 60°-70° to core box axis
- minor talc-chlorite alteration also present throughout rock, and becomes strong along fracture faces
- a few small scattered tremolite crystals throughout rock
- fractures are irreg. spaced (av. 2-3" apart) and are predominantly parallel to schistosity
- carbonate fracture filling common, primarily as calcite c̄ occasional magnesite.
- from 294'-295', small dacite band.
- overall sulphide content ≈ 1%, primarily as vfg diss Po mineralization, c̄ a few small blebs of Po scattered throughout rock. - trace Pn, as indicated by a very weak Ni test reaction on a few very small scattered crystals.

296' - 308' CHERTY DACITE
- fg-aphanitic very slightly schistose, felsic-intermediate (dacite) volcanic rock c̄ ≈ 10-15% quartz crystals (very hard)
- very slight schistosity at 60° to core box axis.
- fractures are irregularly spaced (av. 2-3" apart) and randomly oriented
- calcite and chlorite are predominant fracture filling minerals.
- sulphides are present to 1% as Py-Po blebs along chlorite-carbonate filled fractures, as well as some very minor fg diss Py mineralization.
- from 305' - 306.2', small graphitic band c̄ 10% sulphides as large blebs and seams of Po ≈ 8% and tr. ZnS, Py ≈ 1%, Cpy ≈ 1%.
- at 307.5', small 2" QFP dyke, vuggy, c̄ Py coating of vugs.

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY. SAMP. INT.	ESTIMATED
5%		100%	BQ	SAM 243.5		
	247			SAM 250		
5%		100%		SAM 256		
	257	100%		SAMPLE 262		
7-8%	267	100%		SAMPLE 278		
	277	100%		SAMPLE 289		
1%	287	100%		SAMPLE 296		
1%	297					

HOLE NO. KENNEDY - 1 | PROJECT: KENNEDY | PAGE NO: 6 OF 9

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: DEC. 11, 1979 | REF. TO CLAIM CORNER:

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INCLINATION: -45° | BEARING: N45°E | TOTAL DEPTH: 497' | LOGGED BY: D. McIVOR

ALTERATION: SERP. | CHLORITE | CALCITE | TALC. | FRACTURING | MINERAL | GEOLOGY

COMMENTS:

AVE CORE REC'Y / HOLE

SECTION | DESCRIPTIVE GEOLOGY | % SULPHIDES | DRILLING INTERVAL | % CORE RECOVERED | CORE SIZE | SAMPLE INTERVAL | % REC'Y. SAMP. INT. | ESTIMATED

300

308' - 317' TALC-CHLORITE-CARBONATE SCHIST (ALTERED ULTRAMAFIC)

- moderate to strongly schistose talc-chlorite-carbonate altered ultramafic rock
- schistosity predominantly at 60° to core box axis
- talc & chlorite alteration are pervasively strong & thin blebs and seams of carbonate (calcite & magnesite) oriented parallel to schistosity occuring throughout rock.
- numerous tremolite crystals scattered throughout rock.
- occasional bands of serpentinized ultramafics occur, possibly a remnant feature of the original rock.
- fractures are predominantly oriented parallel to schistosity & are carbonate filled.
- sulphide content ≈ 0.5%, as small thin fg-po blebs along fractures and some minor fg diss py-po mineralization - neg Ni test, unit is weakly magnetic. av. = 0.2 on Mag-S.

% SULPHIDES: 1% | 10% | 1%

DRILLING INTERVAL: 307

% CORE RECOVERED: 100%

CORE SIZE: BQ

SAMPLE INTERVAL: 305 | SAM | 307.2 | 307.5 | 308

310

317' - 329.5' CHERTY DACITE

- fg aphanitic felsic intermediate (dacitic) volcanic ≈ 10% quartz
- very slightly schistose, as exhibited by the alignment of small mafic clots (as approx. 15% of rock) at 60°-70° to core box axis) - possibly tuffaceous.
- fractures are irreg. spaced and randomly oriented, ± calcite fracture filling and chlorite alteration of mafics along fracture faces.
- from 328' - 329.3', band of strongly schistose, chlorite altered mafic volcanic rock.
- occasional trace amounts of K-spar along fractures
- a few small epigenetic veins cut through rock at random orientations
- sulphide content ≈ 0.5%, as fg diss Py-Po, ± v. minor amounts of Cpy i.e. occasional small thin blebs along a fracture surface

% SULPHIDES: 0.5%

DRILLING INTERVAL: 317

% CORE RECOVERED: 100%

320

330

329.5' - 357' ALTERED MAFIC - ULTRAMAFIC VOLCANIC ROCK

- moderate to strongly schistose talc-chlorite-carbonate altered mafic to ultramafic volcanic rock
- moderate amounts of serpentine alteration also present
- schistosity is predominantly at 60° - 70° to core box axis.
- talc & chlorite alteration are pervasively moderate, becoming strong along occasional bands and seams
- carbonate present as occasional blebs and seams oriented parallel to schistosity. and in the form of calcite
- fractures are closely spaced and randomly oriented, although one fracture set appears to parallel schistosity
- calcite the predominant fracture filling mineral
- from 346' - 347.5', rock becomes extremely biotite rich (biotite as rfg brownish black mineralization, grouped into soft clots and seams)
- overall sulphide content ≈ 0.5%, primarily as small scattered fg cubes & blebs, ± some minor fg-po fg diss. mineralization - at 347' large (1") fg blebs
- unit is magnetic (re-enforcing ultramafic lithology), ± varying intensity from 0.2 to 2.0 on Mag. Sus, ± av. reading ≈ 0.8. - neg Ni test of entire unit.

% SULPHIDES: 0.5%

DRILLING INTERVAL: 327 | 337 | 347

% CORE RECOVERED: 100%

340

350

357' - 369' CRYSTAL DACITE TUFF

- fg slightly crystalline intermediate volcanic tuff, ± occasional cherty fragments.
- fractures are irreg. spaced & randomly oriented ± chlorite & carbonate fracture filling
- occasional thin biotite rich bands & seams
- sulphides present in trace amounts as small scattered fg cubes, fg blebs along fractures, & some minor fg diss fg mineralization
- this unit may be some type of intrusive dike.

% SULPHIDES: TR

DRILLING INTERVAL: 357

% CORE RECOVERED: 100%

360

HOLE NO. KENNEDY-1 | **PROJECT:** KENNEDY | **PAGE NO:** 7 **OF** 9

CASING COLLAR ELEV.: | **GROUND ELEV.:** | **DATE STARTED:** DEC. 11, 1979 | **REF. TO CLAIM CORNER:**

COORDINATES: 12N 4+50W **N.** **E.** | **DATE FINISHED:** DEC. 13, 1979 | **SCALE:** 1" = 10'

INCLINATION: -45° | **BEARING:** N45°E | **TOTAL DEPTH:** 497' | **LOGGED BY:** D. McIVOR

SECTION: 360 – 420

ALTERATION:
- SERP: NIL – V. MINOR – STRONG – MINOR ↓ – V. MINOR
- CHLORITE: V. STRONG – V. STRONG – STRONG ↓ – STRONG
- CALCITE: AS FR. FILL – MOD. ↓ – AS FR. FILL – MODERATE
- TALC: NIL – MINOR – MOD. – WEAK TO MODERATE

FRACTURING / MINERAL: Py, Cpy

GEOLOGY: schistose; biotite veins; fel. dyke; folding

COMMENTS:

DESCRIPTIVE GEOLOGY

364'-365' - GRANODIORITE DYKE
- small felsic intrusive dyke, c a fine grained quartz-feldspar matrix and small biotite & hornblende clts to 25% of rock.
- sulphides present in trace amounts as fg diss Py

365'-371' CHLORITE SERICITE SCHIST (ALTERATION OF LOW ORDER UM. - KOMATIITE BASALT)
- strongly schistose chlorite sericite altered mafic to ultramafic rock.
- minor amounts of talc and carbonate alteration are also present
- schistosity predominantly at 80°-90° to core box axis.
- fractures are irreg. spaced and usually parallel to schistosity - c calcite fracture filling common
- sulphides are present in trace amounts as small scattered Py cubes
- unit is magnetic, reading (av.) 0.8 on Mag. Sus. - neg Ni test.

371'-497' LOW ORDER ULTRAMAFIC ROCK c VARYING DEGREES & TYPES OF ALTERATION
- predominantly a strongly schistose chlorite-sericite altered ultramafic rock, with bands and sections of talc-carbonate alteration as well as occasional thin serpentinized and tremolitic zones.
- schistosity is predominantly at 70°-80° to core box axis, however areas of intense folding have altered this orientation.
- fractures are irreg. spaced (av. 4-6" apart) and are usually parallel - sub parallel to schistosity
- fractures are predominantly filled c carbonate in the form of calcite & magnesite
- occasional biotite rich bands occur throughout rock as small, brown, soft platy blebs and thin veins of biotite. - small magnetite crystals are usually found in biotite rich bands, c the rock matrix usually serpentinized UM (from 371-377 noticeably bio. rich)
- chlorite alteration is pervasively strong throughout rock
- sericite occurs as thin platy sections
- carbonate is present as thin bands and seams oriented parallel to schistosity as well as occasional small semi-spherical blebs which may be amygdaloidal in origin.
- from 398'-399.5' small felsic dyke rock.
- talc-chlorite-carbonate alteration increases in intensity towards 497; becoming the primary alteration type.
- sulphides present in trace amounts, primarily as small scattered Py cubes & blebs - very minor amounts of Cpy also present as occasional small blebs along fractures - Neg Ni test over entire unit
- unit is weakly magnetic in places, registering 0.1-0.2 on Mag. Sus.

% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.	ESTIMATED
TR		100%	BQ			
TR	367					
TRACE		100%				
	377	100%				
TRACE	387	100%				
	397	100%				
	407	100%				
	417		↓			

AVE CORE REC'Y / HOLE:

HOLE NO. KENNEDY - 1
CASING COLLAR ELEV.: GROUND ELEV.:
COORDINATES: L 2N 4150 N N. E.
INCLINATION: -45° BEARING: N45°E

PROJECT: KENNEDY
DATE STARTED: DEC 11, 1979
DATE FINISHED: DEC. 13, 1979
TOTAL DEPTH: 497'

REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY: D. McEVOR

SECTION	ALTERATION: SERP.	ALTERATION: CHLORITE	ALTERATION: CALCITE	ALTERATION: TALC	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
420	VERY MINOR	STRONG	MODERATE	MODERATE TO STRONG		Py		Note: the sample from 437'-447' represents a random test sample. and if any positive assay results are encountered, the remainder of the ultramafic unit can be sampled.		TRACE	427	100%	BQ			
430						Py					437	100%		437		
440												100%		SAMPLE 437 447		
450						Py					457	100%				
460						Py					467	100%				
470						Py					477					
TD																

HOLE NO. KENNEDY-1 | PROJECT: KENNEDY | PAGE NO: 9 OF 9

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: DEC 11, 1979 | REF. TO CLAIM CORNER:

COORDINATES: L2N 4150W N. E. | DATE FINISHED: DEC. 13, 1979 | SCALE: 1" = 10'

INCLINATION: -45° | BEARING: N45°E | TOTAL DEPTH: 497' | LOGGED BY: D. McIVOR

SECTION	ALTERATION: SERP.	ALTERATION: CHLORITE	ALTERATION: CALCITE	ALTERATION: TALC.	FRACTURING	MINERAL	GEOLOGY	COMMENTS: / DESCRIPTIVE GEOLOGY	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.	ESTIMATED
480	MINOR ↓	STRONG ↓	STRONG ↓	STRONG ↓	/	Py										
					/							100%				
					/						487					
490					/											
					/	Py						100%				
					/						497					

Duncan McIvor

PAGE NO.: 1 OF 9 | PROJECT: KENNEDY | HOLE NO.: KENNEDY-1

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: DEC. 11, 1979 | REF. TO CLAIM CORNER:

COORDINATES: L2N 4+50W N. E. | DATE FINISHED: DEC. 13, 1979 | SCALE: 1" = 10'

INCLINATION: - 45° | BEARING: N45°E | TOTAL DEPTH: 497' | LOGGED BY: D. McIVOR

CORE											SLUDGE							
DEPTH INTERVAL		SAMPLE NO.	INCHES REC.	% REC.	ASSAY					DEPTH INTERVAL		SAMPLE NO.	LBS. REC.	% REC.	ASSAY				
FROM	TO				Ni %	Cu %	Au oz	Ag oz	Zn %	FROM	TO								
										Co %									
37'	41.5'	8033	54"	100%	- -		Nil	Nil	- -										
41.5'	46.5'	8034	60"	100%	0.10	0.01	Nil	Nil	0.02										
52.5	54'	8035	18"	100%	0.07	0.01	- -	- -	- -										
55'	62'	8036	84"	100%	0.09	0.01	Nil	Trace	0.02										

PAGE NO.: 2 OF 9

CASING COLLAR ELEV.: GROUND ELEV.:

COORDINATES: LRN 4+50W N. E.

INCLINATION: - 45° BEARING: N45°E

PROJECT: KENNEDY

DATE STARTED: DEC. 11, 1979

DATE FINISHED: DEC. 13, 1979

TOTAL DEPTH: 497'

HOLE NO.: KENNEDY-1

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: D. McIVOR

CORE

DEPTH INTERVAL FROM	DEPTH INTERVAL TO	SAMPLE NO.	INCHES REC.	% REC.	ASSAY Ni %	Cu %	Au oz	Ag oz	Zn %
55'	62'	8036	84"	100%	0.09	0.01	Nil	Trace	0.02
62'	63'	8037	12"	100%	0.03	0.03	0.002	Nil	0.09
63'	73'	8038	120"	100%	0.09	0.02	---	---	---
73'	83'	8039	120"	100%	0.09	0.01	---	---	---
83'	93'	8040	120"	100%	0.10	0.01	---	---	---
93'	101'	8041	96"	100%	0.10	0.01	---	---	---

DEPTH INTERVAL FROM	DEPTH INTERVAL TO
Co %	

SLUDGE

SAMPLE NO.	LBS. REC.	% REC.	ASSAY

PAGE NO.: 3 OF 9

CASING COLLAR ELEV.: GROUND ELEV.:

COORDINATES: L2N 4+50W N. E.

INCLINATION: - 45° BEARING: N45°E

PROJECT: KENNEDY

DATE STARTED: DEC. 11, 1979

DATE FINISHED: DEC. 13, 1979

TOTAL DEPTH: 497'

HOLE NO.: KENNEDY-1

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: D. McIVOR

CORE										SLUDGE									
DEPTH INTERVAL		SAMPLE NO.	INCHES REC.	% REC.	ASSAY					DEPTH INTERVAL		SAMPLE NO.	LBS. REC.	% REC.	ASSAY				
FROM	TO									FROM	TO								

120

130

140

150

160

170

180

PAGE NO.: 4 OF 9 | PROJECT: KENNEDY | HOLE NO.: KENNEDY-1

CASING COLLAR ELEV.: | GROUND ELEV.: | DATE STARTED: DEC. 11, 1979 | REF. TO CLAIM CORNER:

COORDINATES: 12N 9+50W N. E. | DATE FINISHED: DEC. 13, 1979 | SCALE: 1" = 10'

INCLINATION: - 45° | BEARING: N45°E | TOTAL DEPTH: 497' | LOGGED BY: D. McEVOR

CORE

DEPTH INTERVAL FROM	DEPTH INTERVAL TO	SAMPLE NO.	INCHES REC.	% REC.	ASSAY Ni%	Cu%	Au oz	Ag oz	Zn%	Co%
160'	190'	8042	120"	100%	0.14	0.005	- - -	- - -	- - -	0.008
190'	200'	8043	120"	100%	0.14	0.005	- -	- - -	- - -	0.008
200'	204.5'	8044	54"	100%	0.13	0.005	- -	- -	- - -	0.009
204.5'	215'	8045	126"	100%	0.08	0.01	0.002	Nil	0.02	0.009
215'	225'	8046	120"	100%	0.13	0.02	Nil	Nil	0.06	0.010
225'	233'	8047	96"	100%	0.13	0.01	Nil	Nil	0.05	0.010
~~233~~	~~233.8~~	~~8048~~	~~9.6~~	~~100%~~	~~0.10~~	~~0.25~~	~~Nil~~	~~0.03~~	~~0.72~~	
236'	243.5'	8049	90"	100%	0.05	0.06	Nil	Trace	0.66	

SLUDGE

DEPTH INTERVAL FROM	DEPTH INTERVAL TO	SAMPLE NO.	LBS. REC.	% REC.	ASSAY

PAGE NO.: 5 OF 9
CASING COLLAR ELEV.: GROUND ELEV.:
COORDINATES: LRN 4+50 W N. E.
INCLINATION: - 45° BEARING: N45°E

PROJECT: KENNEDY
DATE STARTED: DEC. 11, 1979
DATE FINISHED: DEC. 13, 1979
TOTAL DEPTH: 497'

HOLE NO.: KENNEDY-1
REF. TO CLAIM CORNER:
SCALE: 1" = 10'
LOGGED BY: D. McIVOR

CORE											SLUDGE								
DEPTH INTERVAL		SAMPLE NO.	INCHES REC.	% REC.	ASSAY					DEPTH INTERVAL		SAMPLE NO.	LBS. REC.	% REC.	ASSAY				
FROM	TO				Ni %	Cu %	Au oz	Ag oz	Zn %	FROM	TO								
										Co %									
236'	243.5'	8049	90"	100%	0.05	0.06	Nil	Trace	0.66										
243.5'	250'	8050	78"	100%	0.10	0.03	Nil	Nil	0.06										
250'	256'	8051	72"	100%	0.09	0.01	Nil	Nil	0.06										
256'	267'	8052	132"	100%	0.02	0.03	Nil	Nil	0.05										
267'	278'	8053	132"	100%	0.01	0.01	Nil	Nil	0.02										
278'	289'	8054	132"	100%	0.01	0.01	Nil	Nil	0.01										
289'	296'	8055	84"	100%	0.09	0.01	---	---	---										

PAGE NO.: 6 OF 9

CASING COLLAR ELEV.: GROUND ELEV.:

COORDINATES: LRN 4+50W N. E.

INCLINATION: -45° BEARING: N45°E

PROJECT: KENNEDY

DATE STARTED: DEC. 11, 1979

DATE FINISHED: DEC. 13, 1979

TOTAL DEPTH: 497'

HOLE NO.: KENNEDY-1

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: D. McIVOR

CORE

DEPTH INTERVAL FROM	DEPTH INTERVAL TO	SAMPLE NO.	INCHES REC.	% REC.	ASSAY Ni %	Cu %	Au oz	Ag %	Zn %
305'	306.2'	[illegible]	14.4"	100%	0.05	0.10	0.002	0.02	0.57
327'	328'	6057	12"	100%	- -	0.01	Nil	Nil	- -

DEPTH INTERVAL FROM	DEPTH INTERVAL TO	Co %

SLUDGE

SAMPLE NO.	LBS. REC.	% REC.	ASSAY

PAGE NO.: 7 OF 9

CASING COLLAR ELEV.: GROUND ELEV.:

COORDINATES: LRN 4+50W N. E.

INCLINATION: -45° BEARING: N45°E

PROJECT: KENNEDY

DATE STARTED: DEC. 11, 1979

DATE FINISHED: DEC. 13, 1979

TOTAL DEPTH: 497'

HOLE NO.: KENNEDY-1

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: D. McIVOR

DEPTH INTERVAL		CORE								DEPTH INTERVAL		SLUDGE							
FROM	TO	SAMPLE NO.	INCHES REC.	% REC.	ASSAY					FROM	TO	SAMPLE NO.	LBS. REC.	% REC.	ASSAY				

360

370

380

390

400

410

420

PAGE NO.: 8 OF 9

CASING COLLAR ELEV.: GROUND ELEV.:

COORDINATES: 12N 4150W N. E.

INCLINATION: −45° BEARING: N45°E

PROJECT: KENNEDY

DATE STARTED: DEC. 11, 1979

DATE FINISHED: DEC. 13, 1979

TOTAL DEPTH: 497'

HOLE NO.: KENNEDY-1

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: D. McIVOR

CORE											SLUDGE								
DEPTH INTERVAL		SAMPLE NO.	INCHES REC.	% REC.	ASSAY					DEPTH INTERVAL		SAMPLE NO.	LBS. REC.	% REC.	ASSAY				
FROM	TO				Ni %	Cu %	Au oz	Ag oz	Zn %	FROM	TO								
437'	447'	8058	120"	100%	0.12	0.01	---	---	---										

420
430
440
450
460
470
480

PAGE NO.: 9 OF 9

CASING COLLAR ELEV.: GROUND ELEV.:

COORDINATES: L2N 4150W N. E.

INCLINATION: - 45° BEARING: N45°E

PROJECT: KENNEDY

DATE STARTED: DEC. 11, 1979

DATE FINISHED: DEC. 13, 1979

TOTAL DEPTH: 497'

HOLE NO.: KENNEDY-1

REF. TO CLAIM CORNER:

SCALE: 1" = 10'

LOGGED BY: D. McEVOR

DEPTH INTERVAL		CORE								DEPTH INTERVAL		SLUDGE							
FROM	TO	SAMPLE NO.	INCHES REC.	% REC.	ASSAY					FROM	TO	SAMPLE NO.	LBS. REC.	% REC.	ASSAY				
480																			
490																			
497																			