

HOLE NO: BKP-T-03	SECTION:	GRID:WAWAITAN
-------------------	----------	---------------

PROJECT CODE :
 TENEMENT :
 PROSPECT : WAWAITAN
 GRID : WAWAITAN
 MAP REFERENCE:
 LOCATION : THORNELOE TWP
 HOLE TYPE : DDH

*** DRILLING SUMMARY ***

DDH	0.00 290.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	19/8/96
Date finished:	22/8/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***			
NOMINAL	460.00mN	425.00mE	279.00RL

Pre-collar depth: 290 Final depth: 290.00
 Purpose of hole:
 Hole status: COMPLETE
 Comments:

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SIGNIFICANT ASSAYS ***

From	To	Width

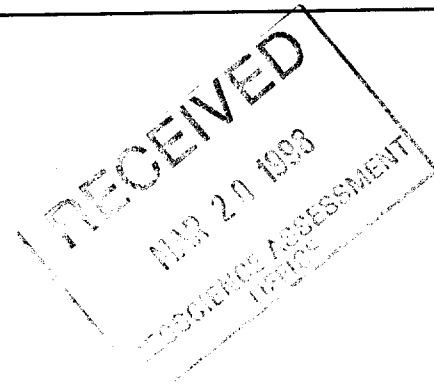
*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	180.00	-45.00
101.00	180.00	-42.00
152.00	180.00	-42.00
200.00	180.00	-41.00
290.00	180.00	-40.00

*** SUMMARY LOG ***

0.00	11.00	OVERBURDEN
11.00	46.00	MAFIC VOLCANICS UNDIFFERENTIATED
46.00	130.20	MAFIC VOLCANICS UNDIFFERENTIATED
130.20	133.70	MAFIC VOLCANICS UNDIFFERENTIATED
133.70	145.60	GREYWACKES
145.60	148.80	GREYWACKES
148.80	162.20	GREYWACKES
162.20	168.60	GREYWACKES
168.60	244.40	GREYWACKES
244.40	252.50	GREYWACKES
252.50	254.70	GREYWACKES
254.70	256.70	GREYWACKES
256.70	273.00	GREYWACKES
273.00	278.80	GREYWACKES
278.80	290.00	GREYWACKES
290.00		END OF HOLE



2.18336



42A06SW2005 2.18336 THORNELOE

Checked and signed: <u>BK POLK</u>	Date: <u>FEB 18 98</u>
------------------------------------	------------------------

From	To	Geological Log
0.00	11.00	OVERBURDEN Parking lot backfill
11.00	46.00	MAFIC VOLCANICS UNDIFFERENTIATED Pale green 15.00-16.00 86719 sample abundant banded alteration 16.70-17.70 86720 irregular quartz carbonate alteration 1% fine grained pyrite trace ars over 25cm 17.70-18.20 86721 coarse grained + fine grained pyrite over 30cm 18.20-19.20 86722 10cm medium grained GREYWACKES with 1% fine grained pyrite + trace ars + 1% coarse grained pyrite 19.20-20.20 86723 80cm quartz carbonate vein with sericite contacts with 1% very fine grained pyrite 24.20-25.20 86724 1% coarse grained euhedral pyrite with q chlorite pressure shadows + 15cm ox quartz carbonate vein with sericite 26.50-27.50 86725 1% coarse grained pyrite in sericite alteration 27.50-28.50 86726 upper contact of 1.8m quartz carbonate vein with sericite 28.50-29.50 86727 lower contact of same 29.50-30.60 86728 1% coarse grained pyrite approx. Equal to 3 30.60-31.10 86729 1% coarse grained pyrite in irregular sericite 37.10-38.10 86730 1% pyrite (coarse grained) approx. Equal to 25cm quartz carbonate vein with very sericitic contacts 38.10-39.10 86731 banded sericite 40.10-41.10 86732 ox zone with 2 10cm quartz carbonate veins 41.90-42.90 86733 2cm & 14cm quartz carbonate veins (ankeritic) with associated sericite alteration + 15 centimeter ser/qc alteration with 1% very fine grained pyrite + trace ars 42.90-43.90 86734 abundant irregular banded alteration S2 foliated nose 1% blebby 43.90-45.10 86735 abundant irregular banded alteration S2 foliated nose 1% blebby + 10cm band with 1% pyrite
46.00	130.20	MAFIC VOLCANICS UNDIFFERENTIATED Dark green fine-coarse grained GREYWACKES volc with 20-30% foliation // quartz carbonate alteration (veinlets) pervasive chloritic alteration throughout minor calcite veinlets 20-30% foliation // irregular
130.20	133.70	MAFIC VOLCANICS UNDIFFERENTIATED Dark green 130.20-131.20 86736 30cm sericite unit with trace pyrite + ars + lam'd alteration 131.20-132.00 86737 lam'd alteration + minor quartz carbonate vein 132.00-133.10 86738 lam'd alteration + minor quartz carbonate vein trace ars

From	To	Geological Log
		133.10-133.70 86739 lam'd alteration + minor quartz carbonate vein trace ars
133.70	145.60	GREYWACKES Pale green-grey 133.70-134.60 86740 strong ser/ankc alteration trace pyrite 134.60-135.70 86741 very coarse grained GREYWACKES with moderate hematite alteration 1% magnetite 1% very fine grained pyrite + trace ars 135.70-136.70 86742 4% coarse grained pyrite in sericite GREYWACKES with minor coarse grained GREYWACKES 10cm quartz carbonate vein @ 45 degrees to core axis with 5% blebby pyrite + trace ars 136.70-137.80 86743 same as above with 3 137.80-138.90 86744 10cm quartz carbonate vein in sericite GREYWACKES 138.90-140.00 86745 sericite ankeritic GREYWACKES with 5% very fine pyrite + ars (blebby) 140.00-141.00 86746 laminae 141.00-142.00 86747 same as above 142.00-143.00 86748 same as above coarser laminae 143.00-144.20 86749 1% pyrite + trace ars in coarsely laminae alteration + quartz carbonate 144.20-145.60 86750 same as above with trace pyrite
145.60	148.80	GREYWACKES Approx. Equal to 5yb (130.20-133.70) above 145.60-146.60 86751 laminae 146.60-147.70 86752 laminae 147.70-148.80 86753 laminae
148.80	162.20	GREYWACKES Strongly altered locally heavily mineralized GREYWACKES with no observable sedimentary features colour from pale grey green to yellowish ochre pervasive ankeritic sericite alteration throughout abundant quartz carbonate alteration as veins 148.80-149.00 86754 strong sericite alteration 149.00-150.80 86755 ankeritic 150.80-151.80 86756 ankeritic 151.80-152.30 86757 ankeritic 152.30-153.20 86758 abundant 153.20-154.20 86759 very strong sericite alteration 3% (pyrite incl 1% ars) 154.20-155.20 86760 silicified

From	To	Geological Log
		155.20-156.40 86761 silicified 156.40-157.40 86762 lam'd sericite silc alteration with 4% pyrite + ars locally 157.40-158.40 86763 coarse grained hematite 158.40-159.40 86764 coarse grained hematite 159.40-160.40 86765 variably sericite altered coarse grained GREYWACKES with minor hematite / magnetite alteration 160.40-161.40 86766 dark coarse grained GREYWACKES with trace pyrite 161.40-162.20 86767 same as above + 70 centimeter porphyry (?) + 35 centimeter sericite
162.20	168.60	GREYWACKES Green-green grey moderately altered md-coarse grained sediments with waving alteration 167.40-168.60 86768 trace ars + dirty blebby pyrite over 40 centimeter in grey silicified sericitized medium grained unit
168.60	244.40	GREYWACKES Grey-black 197.20-197.80 86769 moderately - strongly silicified GREYWACKES 197.80-198.80 86770 moderately-strongly silicified GREYWACKES 202.00-203.00 86771 10 centimeter qcc vein with trace pyrite 208.50-209.00 86772 20cm vuggy ox quartz carbonate vein 212.30-212.80 86773 10cm silicified zone + abundant banded sericite alteration 215.00-216.40 86774 lam'd variable altered GREYWACKES trace pyrite 218.00-219.00 86775 30 centimeter silicified sericitized medium grained GREYWACKES with trace pyrite + irregular quartz carbonate alteration 219.00-220.00 86776 10cm hazy silicified zone + abundant alteration (moderate) 223.50-224.50 86777 sericitized centimeter laminae GREYWACKES with abundant 224.50-226.00 86778 sericitized centimeter laminae GREYWACKES with abundant 226.00-227.00 86779 35 centimeter 227.00-228.00 86780 weakly altered GREYWACKES with minor quartz carbonate alteration 228.00-229.00 86781 moderate sericite alteration 229.00-230.00 86782 weakly altered GREYWACKES with minor quartz carbonate alteration 234.60-236.00 86783 20 centimeter irregular quartz carbonate alteration (with ankerite) locally strong sericitization + abundant deformation 236.00-237.00 86784 30 centimeter hazy blue silicification + ankeritic alteration 243.40-244.40

From	To	Geological Log
		86785 weakly silicified medium grained GREYWACKES
244.40	252.50	GREYWACKES Light grey 244.40-245.40 86786 silicified 245.40-246.40 86787 weak silicification + argillite units 246.40-247.40 86788 pyrite associated with quartz carbonate alteration in sericite GREYWACKES 250.00-251.00 86789 moderately sericitized silicified GREYWACKES with 10cm quartz carbonate alteration zone 251.00-252.50 86790 moderately sericitized + 20cm silicified quartz carbonate zone
252.50	254.70	GREYWACKES Greyish ochre 252.50-253.00 86791 strongly altered medium grained GREYWACKES with trace - 1% fine disseminated + trace ars 253.00-254.00 86792 abundant grey ankerite veinlets 254.00-255.00 86793 abundant grey ankerite veinlets
254.70	256.70	GREYWACKES Approx. Equal to rocks with waning alteration 255.00-255.70 86794 abundant grey ankerite veinlets 255.70-256.70 86795 trace pyrite in silicified
256.70	273.00	GREYWACKES Weakly sericite centimeter bedded GREYWACKES with tops down hole weak pervasive sericite alteration local quartz carbonate alteration weak local silicification alteration increases down the interval S0 @ 70 degrees to core axis S1 ? S2 (?) well clevd flat cleavage slight N dip? trace blebby pyrite locally
273.00	278.80	GREYWACKES Pale green locally laminated sericite 273.00-274.00 86796 silicified sericitized zone with trace pyrite 275.00-276.00 86797 1% fine pyrite associated with sericite silc quartz carbonate alteration a few S2 fracture 276.00-277.00 86798 1% fine pyrite associated with sericite silc quartz carbonate alteration a few S2 fracture 277.80-278.80 86799 10cm quartz carbonate zone with 1% pyrite in lam'd GREYWACKES y
278.80	290.00	GREYWACKES Weakly sericitized 282.50-283.50 86800 30 centimeter medium grained bed

DDH DRILL LOG

BKP-T-03

*** END OF HOLE *** 290.00

HOLE NO: BKP-T-04	SECTION:	GRID:WAWAITAN
-------------------	----------	---------------

PROJECT CODE :BLACK PEARL MINERALS INC.
 TENEMENT :1211139
 PROSPECT :WAWAITAN
 GRID :WAWAITAN
 MAP REFERENCE:
 LOCATION :THORNELOE TWP
 HOLE TYPE :DDH

*** DRILLING SUMMARY ***

DDH	0.00 293.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	22/8/96
Date finished:	24/8/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***

NOMINAL	425.00mN	500.00mE	282.00RL
---------	----------	----------	----------

Pre-collar depth: 293 Final depth: 293.00
 Purpose of hole:
 Hole status: COMPLETE
 Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	180.00	-45.00
50.00	185.00	-45.00
101.00	188.00	-44.00
150.00	195.00	-44.00
200.00	194.00	-43.00
250.00	199.00	-42.00
293.00	200.00	-42.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	15.00	OVERBURDEN
15.00	92.00	MAFIC VOLCANICS UNDIFFERENTIATED
92.00	114.50	MAFIC VOLCANICS UNDIFFERENTIATED
114.50	132.10	GREYWACKES, SILTSTONE/MUDSTONE
132.10	152.50	GREYWACKES
152.50	163.70	GREYWACKES, SILTSTONE/MUDSTONE
163.70	207.50	GREYWACKES, SILTSTONE/MUDSTONE
207.50	268.60	GREYWACKES, SILTSTONE/MUDSTONE
268.60	287.80	GREYWACKES
287.80	293.00	GREYWACKES
293.00		END OF HOLE

2-17-96



42A06SW2005 2.18336 THORNELOE

Checked and signed: <u> <i>BK Polk</i> </u>	Date: <u> FEB 16 '98 </u>
---	-----------------------------

From	To	Geological Log
0.00	15.00	OVERBURDEN Sand with minor backfill (hydro)
15.00	92.00	MAFIC VOLCANICS UNDIFFERENTIATED Variable grain size
92.00	114.50	MAFIC VOLCANICS UNDIFFERENTIATED Pale grey green locally laminated meter-coarse grained volcs with abundant CO3 (ankerite + calc) 102.50-104.00 86801 weakly ox'd 104.00-105.00 86802 diffuse quartz carbonate alteration 105.50-106.50 86803 trace ars in abundant quartz carbonate veinlets 111.00-112.00 86804 1% pyrite + ars in 6cm quartz carbonate band 113.00-114.50 86805 well lam'd quartz carbonate
114.50	132.10	GREYWACKES,SILTSTONE/MUDSTONE 114.50-115.50 86806 coarse grained GREYWACKES with sericite 115.50-116.50 86807 coarse grained GREYWACKES with sericite silc 116.50-117.50 86808 coarse grained GREYWACKES with sericite 117.50-118.50 86809 waning coarse grained units sericite alteration dominant 118.50-119.50 86810 trans zone between coarse grained & fine grained units 10% enhedral pyrite coarse grained over 10cm 118.9m 1% throughout 119.50-120.50 86811 1cm-3cm strong curved quartz carbonate vein in sericitic GREYWACKES 10cm of 10% very coarse grained euhedral pyrite in crenulated zone at end of interval 120.50-121.50 86812 a few quartz carbonate veins in ser/sil unit crenulated at top trace pyrite only 121.50-122.50 86813 fine grained sediments 122.50-123.50 86814 fine grained sediments 123.50-125.00 86815 fine grained sediments 125.00-126.00 86816 fine grained ochre sediments 126.00-127.00 86817 fine grained ochre sediments 127.00-128.00 86818 fine grained ochre sediments + numerous contorted quartz carbonate veins + quartz carbonate 128.00-129.10 86819 ox fracture @ 45 degrees to core axis cut by NNW chloritic quartz carbonate vein subsequently cut by S2 related quartz carbonate vein with 1% pyrite minor 129.10-130.10 86820 foliation // quartz carbonate vein cut by NNW vertical chlorite vein 130.10-131.10 86821 lam'd mauve alteration

From	To	Geological Log
132.10	152.50	<p>GREYWACKES Typical enveloping altered GREYWACKES 134.30-135.30 86822 trace pyrite in abundant quartz carbonate alteration 138.70-139.70 86823 three argillite bands (2cm) with 5% fine grained pyrite along carbonate fractures 139.70-141.00 4020 few quartz carbonate vein coddled 141.00-142.20 86824 trace pyrite associated with silicified sericite zone of 20cm pale grey 142.20-143.50 4021 few quartz carbonate vein coddled 143.50-144.50 86825 trace pyrite in quartz carbonate alteration 149.00-150.40 86826 bracket approx. Equal to arsenopyrite zone below 150.40-150.80 86827 abundant arsenopyrite associated with 8cm 150.80-152.30 86828 BS below arseno zone</p>
152.50	163.70	<p>GREYWACKES,SILTSTONE/MUDSTONE 155.50-157.00 86829 coarse grained GREYWACKES 157.00-157.80 86830 20cm graphitic argillite + 15cm pale grey medium grained GREYWACKES with trace pyrite 157.80-158.80 86831 graphitic argillite with trace blebby pyrite + numerous foliation S0 // quartz carbonates 162.50-163.70 86832 weakly altered medium grained GREYWACKES with numerous quartz carbonate veins 1 1cm veinlet is contorted with 1% pyrite 1 S2 // quartz carbonate vein</p>
163.70	207.50	<p>GREYWACKES,SILTSTONE/MUDSTONE 169.20-170.70 172.00-173.00 86834 core axis // quartz carbonate veins with abundant pyrite in argillitic sediments with quartz carbonate veins 183.90-184.40 86835 28 centimeter silicified zone 199.30-200.30 86836 check sample 1% blebby bright pyrite in argillitic</p>
207.50	268.60	<p>GREYWACKES,SILTSTONE/MUDSTONE 212.50-213.50 86837 moderately silicified GREYWACKES around 5cm quartz ankerite vein (alteration concentrated up hole of vein) variable trace magnetite trace pyrite 218.00-219.00 86838 contorted 219.00-220.00 86839 contorted 220.00-221.00 86840 minor quartz carbonate alteration 223.50-224.50 86841 highly altered sericite silica ankerite quartz carbonate trace pyrite ankeritic veinlets associated 224.50-225.50 86842 highly altered sericite silica ankerite with silicified zones 225.50-226.60</p>

From	To	Geological Log
		86843 233.70-235.20 86844 locally silicified GREYWACKES 237.60-238.60 86845 silicified zone with small 90 degrees to core axis fault 248.00-249.00 86846 check sample of thick 267.10-268.60 86898 few quartz carbonate vein coddled
268.60	287.80	GREYWACKES Dominantly medium grained grey wacke 268.60-269.20 86847 50 centimeter sericite 269.20-270.70 86899 few quartz carbonate vein coddled 270.70-272.20 86900 few quartz carbonate vein coddled 272.20-272.80 86848 25 centimeter medium grained GREYWACKES 272.80-273.30 4001 few quartz carbonate vein coddled 273.30-274.30 86849 40cm medium grained GREYWACKES 274.30-275.80 4002 few quartz carbonate vein coddled 275.80-276.90 4003 few quartz carbonate vein coddled 276.90-277.90 86850 12 centimeter & 20 centimeter sericite altered medium grained GREYWACKES with 2% dirty blebby pyrite + trace fucsite 277.90-279.40 4004 few quartz carbonate vein coddled 279.40-281.00 4005 few quartz carbonate vein coddled 281.00-282.00 86891 70 centimeter sericite ankerite zone 2% blebby dirty pyrite 282.00-282.70 4006 few quartz carbonate vein coddled 282.70-283.70 86892 banded sericite alteration with trace blebby brassy pyrite 283.70-284.60 4007 few quartz carbonate vein coddled 284.60-285.50 4008 few quartz carbonate vein coddled 285.50-286.50 86893 S2 crenulated 2cm coddled quartz carbonate vein + abundant irregular quartz carbonate alteration 286.50-287.90 4009 few quartz carbonate vein coddled
287.80	293.00	GREYWACKES Weakly sericite / ankeritic centimeter bedded GREYWACKES

*** END OF HOLE *** 293.00

HOLE NO: BKP-T-05 SECTION: GRID:WAWAITAN

PROJECT CODE :BLACK PEARL MINERALS INC.
 TENEMENT :1211139
 PROSPECT :WAWAITAN
 GRID :WAWAITAN
 MAP REFERENCE:
 LOCATION :THORNELOE TWP
 HOLE TYPE :DDH

*** DRILLING SUMMARY ***

DDH	0.00 317.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	25/8/96
Date finished:	28/8/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***

NOMINAL	623.00mN	700.00mE	275.00RL
---------	----------	----------	----------

Pre-collar depth: 317 Final depth: 317.00
 Purpose of hole:
 Hole status: COMPLETE
 Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	180.00	-50.00
65.00	182.50	-52.00
110.00	186.50	-52.00
155.00	189.50	-50.50
200.00	193.50	-49.00
251.00	198.50	-49.00
317.00	200.50	-48.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	60.00	OVERBURDEN
60.00	110.00	GREYWACKES
110.00	132.00	HIGHLY METAMORPHOSED ROCKS UNDIFFERENTIATED
132.00	140.00	GREYWACKES
140.00	194.00	GREYWACKES
194.00	237.60	GREYWACKES
237.60	238.00	BRECCIA
238.00	243.00	GREYWACKES
243.00	249.80	MAFIC VOLCANICS UNDIFFERENTIATED
249.80	250.70	GREYWACKES
250.70	279.30	MAFIC VOLCANICS UNDIFFERENTIATED
279.30	317.00	MAFIC VOLCANICS UNDIFFERENTIATED
317.00		END OF HOLE

2 1 1 3 6



42A06SW2005 2.18336 THORNELOE

Checked and signed: BA. W Date: FEB 18 98

From	To	Geological Log
0.00	60.00	OVERBURDEN Thicker than expected ovb
60.00	110.00	<p>GREYWACKES Pale grey green fine - medium grained GREYWACKES minor sericite alteration locd along thin fine grained beds of GREYWACKES minor quartz carbonate veinlets (calcite) weak chloritic alteration ox approx. Equal to 89m local weak kapeka alteration S0 at 5-10 degrees to core axis fractures & foliation 45 degrees to core axis</p> <p>63.50-65.00 7501 1% fine grained - medium grained pyrite in coarse grained GREYWACKES unit in fault contact with fine grained GREYWACKES (minor)</p> <p>65.00-66.30 7502 1% fine grained - medium grained pyrite in coarse grained GREYWACKES unit in fault contact with fine grained GREYWACKES</p> <p>66.30-66.70 7503 2cm-3cm irregular quartz carbonate vein with pink carbonate (calcite) + 30% fine grained pyrite (10 degrees to core axis)</p> <p>66.70-68.00 7504 1% coarse grained pyrite</p> <p>68.00-69.00 7505 1% coarse grained pyrite</p> <p>* sample boundaries throughout are approximated due to rubbly core</p> <p>75.00-76.00 7506 10% medium grained euhedral pyrite locally</p> <p>76.00-77.20 7507 10% medium grained euhedral pyrite locally</p> <p>77.20-78.00 7508 1% pyrite locally vuggy</p> <p>78.00-79.00 7509 1% pyrite locally vuggy</p> <p>79.00-80.00 7510 2% pyrite locally vuggy</p> <p>80.00-83.00 7511 1% pyrite locally</p> <p>83.00-84.50 7512 2% pyrite locally in seams in vuggy GREYWACKES</p> <p>84.50-86.00 7513 trace pyrite</p> <p>86.00-87.50 7514 1-2% locally</p> <p>87.50-89.00 7515 2% locally</p> <p>89.00-90.50 7516 low< quartz carbonate vein with 5% pyrite</p> <p>90.50-92.00 7517 2% associated with vuggy fractures</p> <p>abundant material remains unsampled to keep assay costs down if 7506-7517 samples run...Return</p> <p>104.00-105.50 7518 2% fine pyrite in dike altered sediments (?) reddish hematite + orange calcite veinlets</p> <p>105.50-107.00 7519 2% fine pyrite in dike altered sediments (?) reddish hematite + orange calcite veinlets</p> <p>107.00-110.00</p>

From	To	Geological Log
		7520 2% fine pyrite in dike altered sediments (?) reddish hematite + orange calcite veinlets
110.00	132.00	<p>HIGHLY METAMORPHOSED ROCKS UNDIFFERENTIATED Dark green 110.00-111.00 7521 contact zone (?) mixed GREYWACKES + HIGHLY METAMORPHOSED ROCKS UNDIFFERENTIATED (?) 121.40-122.00 7522 up to 40% wispy disseminated pyrite bands + irregular 5cm brecciated quartz carbonate vein with dark red hematite alteration 122.00-123.00 7523 dark purple dike rock (?) with 2% fine pyrite + abundant calcite veinlets (breccia) 124.00-125.00 7524 abundant calcite veinlets + abundant powdery epidote 127.00-128.00 7525 abundant hematite alteration along fractures + trace pyrite locally 128.00-129.00 7526 abundant hematite alteration dike breccia 1% very fine pyrite 129.00-130.00 7527 purple altered breccia rock with 1cm dark purple finger dike 1% pyrite 130.00-131.00 7528 weakly altered dike rock with trace pyrite. 131.00-132.00 7529 vuggy rock with pervasive purple alteration (hematite?) breccia</p>
132.00	140.00	<p>GREYWACKES Very approx. Equal to unit above dike millimeter kopeka type alteration in pieces throughout ... Probably broken</p>
140.00	194.00	<p>GREYWACKES Rubbly grey - to pink 140.00-141.50 7530 1% blebby + fine grained pyrite 10% orange + pink material 141.50-143.00 7531 5% coarse vein pyrite 10% orange and pink colour 143.00-144.50 7532 3% fine to coarse pyrite 5% colour 144.50-146.00 7533 5% pyrite, 5% orange and pink colour 146.00-147.50 7534 5% pyrite (10% locally) 10% orange and pink colour 147.50-149.00 7535 10-20% coarse grained pyrite 70% colour (dark red) 149.00-150.50 7536 4% pyrite, 40% orange and pink colour 150.50-152.00 7537 5% pyrite associated veinlets 152.00-153.50 7538 5% pyrite associated veinlets 153.50-155.00 7539 20% very fine + coarse grained 50% colour 155.00-156.50 7540 10-15% very fine + coarse grained 50% colour 156.50-158.00 7541 10% coarse grained + fine grained in banded rock (close to competent!) 158.00-159.50 7542 5% pyrite, 5% banded rock 159.50-161.00 7543 5% along veinlets 50% reddish 161.00-162.50</p>

From	To	Geological Log
		<p>7544 2% in dominant reddish rock 162.50-164.00 7545 3% pyrite in 90% reddish rock 164.00-165.50 7546 5% pyrite in 40% reddish rock 165.50-167.00 7547 3% pyrite in 40 % reddish rock 167.00-168.50 7548 3% fine grained 2% coarse grained 40% reddish rock 168.50-170.00 7549 3% fine grained 2% coarse grained 70% reddish rock 170.00-173.00 7550 5% pyrite, 50% reddish rock 173.00-174.50 7551 1% pyrite, 5% dike? 174.50-176.00 7552 3% pyrite 40% reddish rock 176.00-177.50 7553 1% pyrite, 10% reddish rock 177.50-179.00 7554 3% pyrite, 50% reddish rock 179.00-180.50 7555 4% pyrite, 50% reddish rock 180.50-182.00 7556 3% pyrite, 50% reddish rock 182.00-183.50 7557 2% pyrite, 20% reddish rock 183.50-185.00 7558 2% pyrite, 20% reddish rock 185.00-188.00 7559 2% pyrite, 20% reddish rock 188.00-189.50 7560 trace pyrite, 10% reddish rock 189.50-191.00 7561 1% pyrite 50% reddish rock 191.00-192.50 7562 2% pyrite, 30% reddish rock 192.50-194.00 7563 1% pyrite, 20% reddish rock</p>
194.00	237.60	<p>GREYWACKES Reddish 194.00-195.50 7564 reddish rock 1% fine grained pyrite oxidized fracture zone. 195.50-197.00 7565 reddish rock 1% fine grained pyrite ox 197.00-198.50 4010 reddish 201.50-203.00 4011 reddish 203.00-204.00 7566 reddish rock 1% fine grained pyrite ox + abundant quartz alteration 204.00-205.00 7567 trace pyrite in grey sericite 205.00-206.00 7568 trace pyrite in grey sericite 206.00-207.50 4012 reddish</p>

From	To	Geological Log
		<p>210.00-211.00 7569 1-2% blebby coarse grained pyrite in vuggy red rock</p> <p>216.50-218.00 7570 2-4% very fine grained pyrite in red rock with minor quartz carbonate alteration</p> <p>218.00-219.00 7571 3% very fine grained pyrite + minor coarse grained pyrite with minor quartz carbonate alteration vugs</p> <p>219.00-220.00 7572 3% very fine grained pyrite + minor coarse grained pyrite with minor quartz carbonate alteration vugs</p> <p>220.00-221.00 7573 3% very fine grained pyrite + minor coarse grained pyrite with minor quartz carbonate alteration vugs</p> <p>221.00-222.20 7574 3% very fine grained pyrite + minor coarse grained pyrite with minor quartz carbonate alteration vugs</p> <p>225.00-226.20 7575 3% very fine grained pyrite + minor coarse grained pyrite with minor quartz carbonate alteration vugs + trace arsenopyrite</p> <p>226.20-227.20 7576 sericite grey alteration + calcite trace pyrite</p> <p>227.20-228.20 7577 contact of grey /red alteration</p> <p>* much of this zone was not sampled for expensidencies sake...Any good assays should be followed up</p> <p>228.20-230.20 7578 1-2% very fine grained pyrite</p> <p>230.20-231.20 7579 2-3% very + 3cm quartz carbonate vein with silicified margins trace ars</p> <p>231.20-232.20 7580 2% very fine grained pyrite in waning red alteration with abundant vugs</p> <p>232.20-233.20 7581 2% coarse pyrite along fractures bedding planes in greenish sericitic alteration with minor red alteration</p> <p>233.20-234.20 7582 2% coarse pyrite along fractures in more reddish alteration</p> <p>234.20-235.20 7583 trace pyrite in red altered</p> <p>235.20-236.20 7584 trace pyrite in red altered with abundant vugs & S0 // slips</p> <p>236.20-237.20 7585 trace pyrite in red altered + numerous 45 degrees to core axis perpendicular to S0 vugs 1% very fine grained pyrite.</p> <p>237.20-237.60 7586 contact zone colour - dirty grey green</p>
237.60	238.00	<p>breccia Sericite / silicified / ankeritic breccia or very coarse grained sediments with large clasts & chloritic matrix minor calcite veining 2cm irregular quartz carbonate vein minor movement along small fracture @ 20 degrees to core axis</p> <p>237.60-238.00 7587 1-2% very fine disseminated pyrite in variable alteration</p>

From	To	Geological Log
238.00	243.00	<p>GREYWACKES Dark green chloritic sediments with variable & varietal alteration including sericitization 238.00-239.00 7588 sericite breccia zone over 50 centimeter 239.00-240.00 7589 sericite breccia zone over 50cm 240.00-241.50 7590 abundant calcite alteration + trace pyrite 241.50-242.50 7591 abundant calcite + chloritic alteration + trace pyrite 242.50-243.00 7592 sericite breccia zone with chloritic matrix trace</p>
243.00	249.80	<p>MAFIC VOLCANICS UNDIFFERENTIATED Variably green</p>
249.80	250.70	<p>GREYWACKES Orange/red 249.80-250.70 7593 trace pyrite disseminated</p>
250.70	279.30	<p>MAFIC VOLCANICS UNDIFFERENTIATED Same as MAFIC VOLCANICS UNDIFFERENTIATED from 243.0-249.80 meter with slightly more sericite + locally strong pyrite mineralization. The end of the interval is marked by abundant 250.70-251.80 7594 2% blebby seamy pyrite in strong sericite alteration 251.80-252.90 7595 1% disseminated pyrite in sporadic red brown alteration associated with minor silicification + quartz carbonate alteration 252.90-254.00 7596 1% disseminated pyrite with 11 centimeter irregular quartz carbonate alteration network 256.10-257.10 7597 pale sericite / silica alteration hosts 1% medium grained pyrite 257.90-259.00 7598 several pale sericite bands host pyrite strong S2 271.10-272.10 7599 banded sericite 278.20-279.30 7600 abundant</p>
279.30	317.00	<p>MAFIC VOLCANICS UNDIFFERENTIATED Dark green</p>

*** END OF HOLE *** 317.00

HOLE NO: BKP-T-06 SECTION: GRID: WAWAITAN

PROJECT CODE : BLACK PEARL MINERALS INC.
 TENEMENT : P 871715
 PROSPECT : WAWAITAN
 GRID : WAWAITAN
 MAP REFERENCE:
 LOCATION : THORNELOE TWP
 HOLE TYPE : DDH

*** DRILLING SUMMARY ***

DDH	0.00 311.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	28/8/96
Date finished:	5/9/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***

NOMINAL	600.00mN	-100.00mE	306.00RL
---------	----------	-----------	----------

Pre-collar depth: 311 Final depth: 311.00

Purpose of hole:

Hole status: COMPLETE

Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	176.00	-46.00
50.00	183.00	-47.50
101.00	186.00	-45.50
152.00	196.00	-42.50
200.00	195.00	-41.50
250.00	204.00	-39.50
311.00	208.00	-38.50

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	33.00	OVERBURDEN
33.00	155.90	GREYWACKES
155.90	209.00	GREYWACKES
209.00	213.20	GREYWACKES, SILTSTONE/MUDSTONE
213.20	221.00	GREYWACKES
221.00	243.30	MAFIC VOLCANICS UNDIFFERENTIATED
243.30	275.60	MAFIC VOLCANICS UNDIFFERENTIATED
275.60	280.70	FELSIC INTRUSIVES UNDIFFERENTIATED
		GREYWACKES
280.70	311.00	GREYWACKES
311.00		END OF HOLE

2. 18336



42A06SW2005 2.18336 THORNELOE

040

Checked and signed: [Signature] Date: FEB 10 '98

From	To	Geological Log
0.00	33.00	OVERBURDEN
33.00	155.90	<p>GREYWACKES Dark green, reddish and pale green, banded alteration (hematite, sericite, chlorite ...) Meter variable grainsize, generally thick bedded (centimeter-decimeter scale) greywacke sediments coarse grained unit from 67.8-70.2meters .. Coarse grained units seem more prone to hematite alt (more magnetite?)</p> <p>- bands (centimeter-decimeter) of weak-moderate hematization, chloritization, seritization, quartz carbonate alteration , minor weak ankerite, oxidization, generally all S0// often minor magnetite associated with hematite alteration</p> <p>- S0 @ 55-60 degrees to core axis abundant oxidized S0// frac throughout S? NW striking NE 65 dipping locally developed, S2 (?) flat (NE-SE dipping) slightly N dipping, flat cren'n locally developed RQD overall is 30, many intervals are oxidized & 0 RQD ox'd FAULT ZONE from 77-80.5meters, FAULT ZONE from 110-113, 133-134 trace-1% blebby pyrite associated with quartz carbonate alteration locally</p> <p>-alteration becomes less banded & more chloritic @ 110meters quartz carbonate veins, purplish hematite alteration the rock itself appears volcanic, locally near the end of the interval, perhaps a few thin flows pyrite generally fine grained & associated with pinkish to reddish hematite alteration</p> <p>33.70-35.20 4013 lt redish grey, oxidation (rust coloured) bands local sericite alteration is ???</p> <p>35.20-36.70 7601 trace disseminated pyrite + 1% blebby locally in 1 meter weak hematite zone, oxidized with minor quartz carbonate</p> <p>36.70-38.30 4014</p> <p>39.00-40.60 7602 trace-1% very fine disseminated pyrite in 60cm hematite zone (weak)</p> <p>43.60-44.60 7603 sample, weak hematite , chloritic, sericite & quartz carbonate alteration</p> <p>61.20-62.20 7604 1% fine grained disseminated pyrite + minor magnetite in weak hematite, sericitic, quartz carbonate, ankeritic alteration</p> <p>66.20-67.20 7605 1% very fine grained disseminated pyrite in weak sericite / vuggy quartz carbonate alteration</p> <p>67.80-69.00 7606 1% very fine grained disseminated pyrite in hematite altered coarse grained clastic unit</p> <p>74.00-74.50 7607 2% fine pyrite in bleached sericitic bands ... Chloritic pressure shadows</p> <p>78.50-80.00 7608 1% fine grained pyrite in hematite zone with oxidized FAULT ZONE</p> <p>98.00-99.50 7609 trace pyrite in pale purple hem/ser (?) alteration</p> <p>107.30-108.70 7610 trace-1% pyrite in variable banded alteration, FAULT ZONE</p> <p>108.70-110.00 7611 1-2% fine, euhedral pyrite in FAULT ZONE</p> <p>110.00-111.50 7612 1-2% pyrite in FAULT ZONE</p> <p>111.50-113.00</p>

From	To	Geological Log
		<p>7613 trace-2% fine grained pyrite associated with quartz carbonate & sericitic alteration 118.60-119.10 7614 trace-2% fine grained pyrite associated with quartz carbonate & sericitic alteration 128.70-130.20 7615 trace pyrite associated with purple hematite alteration 135.00-136.00 7616 banded hematite, sericite, quartz carbonate alteration with trace pyrite 137.50-138.00 7617 S2 folded sericite band with 3% fine pyrite 148.20-149.20 7618 1% very fine grained pyrite in banded hematite sericite & vuggy quartz carbonate alteration 151.50-151.80 7619 16cm qccv with 50% ankerite + 2% metallic black mineral</p>
155.90	209.00	<p>GREYWACKES Same lithologically as unit above, although more volcanic looking locally with different alteration suite more chlorite, sericite and ankerite with less hematite. Rock is less fractured as well ... Hematite & late structure association (?)</p> <p>abundant weak-moderate, diffusely banded chloritic, sericitic, quartz carbonate & ankeritic alteration ankerite is dominant carbonate, often vermiform veinlets quartz carbonate alteration is often hazy a few larger quartz carbonate veins host coddled ankerite sericite is weak & pervasive throughout, strongly banded locally hematite alteration is weak, local & thin</p> <p>S0 @ 55-60 degrees to core axis S1 // ? S2 flat schist/cren locally developed, seen in sericitic / quartz carbonate bands 8cm foliation S0 // quartz carbonate vein with coddled ankerite @ 166meters RQD 80 throughout minor ox'n associated with frac @ 188.5meters</p> <p>trace-1% fine grained pyrite associated with broad, weak sericitic alteration trace-2% coarse grained pyrite associated with minor, thin, hematite altered bands trace pyrite in quartz carbonate alteration locally 160.00-161.00 7620 trace pyrite in moderate sericitic alteration with banded quartz carbonate alteration 161.00-162.00 7621 2% dirty blebby + fine grained disseminated pyrite in strong ser/ank/qc alteration 162.00-163.00 7622 trace fine grained pyrite in sericitic ankeritic alteration with minor quartz carbonate alteration 163.00-164.00 7623 1% fine grained + blebby , seamy coarse grained pyrite in same 165.00-165.40 7624 8cm coddled ankerite / quartz carbonate vein , trace pyrite 178.90-179.90 7625 2% blebby seamy pyrite in moderate sericite , quartz carbonate, ankerite chlorite alteration with NS frac 184.60-185.60 7626 minor hematite alteration with 1% very fine grained pyrite associated, 2cm 90 degrees to core axis quartz carbonate vein 193.40-194.40</p>

From	To	Geological Log
		<p>7627 1% seamy, coarse grained pyrite // S0 200.00-201.00</p> <p>7628 ser/ank alteration with trace fine grained disseminated + 1% blebby seamy pyrite 201.00-202.00</p> <p>7629 same as above 202.00-203.00</p> <p>7630 same as above 203.00-204.00</p> <p>7631 same as above 204.00-205.00</p> <p>7632 same as above</p>
209.00	213.20	<p>GREYWACKES, SILTSTONE/MUDSTONE Dark grey, fine - medium grained greywackes with abundant black argillitic intervals (20%) definitely sediments</p> <p>weak pervasive sericite alteration (visible in light coarse grained beds) moderate banded-pervasive ankeritic alteration 8cm pink calcite vein with vugs with calcite crystals minor quartz carbonate alteration as S0 // veinlets. S0 @ 80 degrees to core axis S2 flat foliation (N-E-S dipping?) prevalent locally fracturing associated with calcite vein @ 211.6meters trace blebby pyrite locally</p>
213.20	221.00	<p>GREYWACKES Light grey - green , variable grain size, dubious sediments with abundant sericitic & banded ankerite alteration</p> <p>locally strong banded sericite & ankerite alteration minor calcite alteration as veinlets minor coddled ankerite / quartz carbonate alteration</p> <p>S0 @ 85 degrees to core axis foliation is unobserved calcite veinlets strikes EW dips N @ 40 degrees to core axis</p> <p>* overlying argillites/greywackes show well developed foliation (S2) while this unit shows none ... Volcanic vs sediment?</p> <p>trace dirty blebby pyrite + trace fine grained euhedral pyrite disseminated throughout 217.70-218.60 7633 trace fine grained pyrite associated with sericitic / ankeritic / quartz carbonate alteration 218.60-219.60 7634 trace-1% blebby dirty pyrite in pale green grey sericitic alteration 219.60-220.60 7635 trace seamy coarse grained pyrite associated with quartz carbonate alteration</p>
221.00	243.30	<p>MAFIC VOLCANICS UNDIFFERENTIATED Variably green fine-medium grained volcanic flows (?) massive (?) these rocks occasionally look very sedimentary! (ie variable grainsize, clastic texture)</p> <p>weak-moderate, pervasive, chloritic alteration throughout abundant quartz carbonate alteration (carbonate is dominantly ankerite), irregular & foliation (?) // up to 50% minor sericitic alteration throughout (weak-moderate) minor bleaching pervasive ankeritic alteration, moderate-locally strong S0(?) @ 70 degrees to core axis</p>

From	To	Geological Log
		<p>very minor flat S2 all foliations poorly developed trace fine grained pyrite throughout abundant py+ars approx. 60cm qcv/altn network 232.90-234.40</p> <p>4015 variable green weak sericite alteration, meter quartz carbonate vein pyrite variable green chlorite, vw sericite, abundant quartz carbonate vein 1-2% blebs pyrite locally ??? minor (tourmaline) trace fine grained disseminated yellow ??? mineral (ochre?) disseminated and along fol throughout 234.40-235.60</p> <p>7636 2% pyrite + 3% tourmaline in 80% quartz carbonate, sericite network over 50cm 235.60-236.60</p> <p>7637 5% pyrite + 2% arsenopyrite associated with 90% quartz carbonate, sericite network over 60 centimeter 236.60-238.10</p> <p>4017 abundant quartz carbonate vein red minor along fractures (brick coloured) chlorite trace-2% pyrite blebs trace disseminated pyrite locally sericite 240.30-241.80</p> <p>7638 abundant quartz carbonate alteration with 1% blebby, seamy pyrite 241.80-243.30</p> <p>7639 trace pyrite, hematite (oxidized) fractures NS, 50% quartz carbonate alteration.</p>
243.30	275.60	<p>MAFIC VOLCANICS UNDIFFERENTIATED Green-dark green, volcanic flows with locally abundant quartz carbonate alteration throughout</p> <p>pervasive weak-moderate chloritic alteration 25% to 50% (locally) banded quartz carbonate (calcite) alteration patchy ankeritic alteration (weak) abundant, local pinpoint carbonate alteration minor ox'n approx. A few NS frags</p> <p>S0/S1 approx. 75-80 degrees to core axis possible shearing, locally throughout S2 flat cren'n rarely locally developed, local movement 275.5meters</p> <p>50% semi massive pyrite as replacement of quartz carbonate alteration over 60cm abundant magnetite associated with pyrite in same interval over 6cm 263.30-264.30</p> <p>7640 as above 274.10-275.60</p> <p>7641 1% local pyrite associated with S2 crenulated (with movement) + abundant quartz carbonate alteration</p>
275.60	280.70	<p>FELSIC INTRUSIVES UNDIFFERENTIATED GREYWACKES Strongly altered contact zone between volcanics above & sediments below. From 279.7-.9, the rock is very strangely textured. Perhaps a sheared porphyry or highly altered coarse clastic. Magnetic is locally abundant. This unit correlates lithologically & stratigraphically well with the upper zone intersected in previous drill holes T-2,3 approx. 500meters East although it is lesser in respect to extent of alteration & mineralization</p> <p>pale yellow, green, grey & orange ... Local coarse grained nature, highly stretched or sheared approx. 280 (porphyry?) Magnetic 5-10% magnetite from 278.5-280.6meters</p> <p>strong sericitic alteration throughout weak patchy pervasive ankeritic alteration chloritic alteration in S2 // frags (2mm wide, discrete) local albitization (?)</p>

From	To	Geological Log
		<p>abundant magnetite locally</p> <p>S0 50-75 degrees to core axis S1 // S2 flat locally developed, chloritic fracs shearing // to S0? small fz @ 280.3meters, highest magnetite count</p> <p>3-5% fine grained often blebby pyrite disseminated throughout 275.60-276.60 7642 trace pyrite in blch, sericitic GREYWACKES / MAFIC VOLCANICS UNDIFFERENTIATED with abundant chloritic S2 fracs 276.60-277.60 7643 1% blebby pyrite in sericitic 5b/2u with abundant chloritic 277.60-278.40 7644 1% blebby pyrite in sericitic 5b/2u with abundant chloritic S2 278.40-279.40 7645 5% gramy magnetite + 2% disseminated + seamy pyrite in variably altered coarse grained GREYWACKES 279.40-280.50 7646 "porphyry" + main magnetite zone with fractures</p>
280.70	311.00	<p>GREYWACKES</p> <p>Coarse grained unit from 280.7-286.5 is locally moderately altered (sericitic + ankerite) balance of interval is centimeter bedded, greywackes sediments with minor argillitic sequences grey-green in colour. Graded bedding is non-conclusive (tops down hole?)*</p> <p>weak sericitic alteration in coarse grained unit very weak patchy, locally banded ankeritic alteration minor graphite in some argillites ?</p> <p>S0 @ 70-85 degrees to core axis S2 is prominent (flat, N-NE dipping) minor S side up movement along EW fractures (vertical) complex folding S2? @ 292.5meters bed replication 292.5meters 284.00-285.00 7647 trace fine grained pyrite in coarse grained unit 286.80-290.10 Dark grey bands bands often crenulated few quartz carbonate vein weak ankerite alteration re blebby fractured pyrite concentrated in bands sericite alteration locally</p>

*** END OF HOLE *** 311.00

HOLE NO: BKP-T-07	SECTION:	GRID:WAWAITAN
-------------------	----------	---------------

PROJECT CODE :BLACK PEARL MINERALS INC.
 TENEMENT :HS983
 PROSPECT :WAWAITAN
 GRID :WAWAITAN
 MAP REFERENCE:
 LOCATION :THORNELOE TWP
 HOLE TYPE :DDH

*** DRILLING SUMMARY ***

DDH	0.00	305.00 BQ
Drill contractor:	NOREX	
Drill rig:		
Date started:	5/9/96	
Date finished:	9/9/96	
Logged by:	BK POLK	
Relogged by:		
Sampled by:		

*** COLLAR COORDINATES AND RL ***

NOMINAL	400.00mN	-500.00mE	308.50RL
---------	----------	-----------	----------

Pre-collar depth: 305 Final depth: 305.00
 Purpose of hole:
 Hole status: COMPLETE
 Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	175.00	-45.00
50.00	182.50	-42.00
101.00	191.00	-38.00
150.00	197.50	-36.00
200.00	198.50	-34.00
260.00	201.50	-32.00
299.00	207.50	-32.00
305.00	209.50	-32.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	3.00	OVERBURDEN
3.00	9.60	MAFIC VOLCANICS UNDIFFERENTIATED
9.60	10.70	FELSIC INTRUSIVES UNDIFFERENTIATED
10.70	16.10	MAFIC VOLCANICS UNDIFFERENTIATED
16.10	29.90	MAFIC VOLCANICS UNDIFFERENTIATED
29.90	109.10	GREYWACKES, SILTSTONE/MUDSTONE
109.10	110.70	GREYWACKES
110.70	119.10	GREYWACKES FELSIC INTRUSIVES UNDIFFERENTIATED
119.10	141.80	GREYWACKES
141.80	145.70	SILTSTONE/MUDSTONE, GREYWACKES
145.70	235.20	BRECCIA GREYWACKES
235.20	248.70	GREYWACKES
248.70	253.40	GREYWACKES

2-1-98



42A06SW2005 2.18336 THORNELOE

Checked and signed: <u>BAW</u>	Date: <u>FEB 18 '98</u>
--------------------------------	-------------------------

HOLE NO: BKP-T-07

SECTION:

GRID:WAWAITAN

253.40	256.50	GREYWACKES, SILTSTONE/MUDSTONE
256.50	283.00	SILTSTONE/MUDSTONE, GREYWACKES
283.00	305.00	GREYWACKES HIGHLY METAMORPHOSED ROCKS
305.00		UNDIFFERENTIATED END OF HOLE

Checked and signed: _____ Date: _____

From	To	Geological Log
0.00	3.00	OVERBURDEN
3.00	9.60	<p>MAFIC VOLCANICS UNDIFFERENTIATED Laminated dark green volcs with abundant laminated alteration including quartz carbonate, sericite, chlorite with minor oxidization</p> <p>moderately altered throughout, laminated with quartz carbonate & chlorite with locally abundant sericite some fractures are heavily oxidized a few large quartz carbonate veins host tourmaline, chlorite & trace fuchsite lesser altered volc show minor, pin point carbonate alteration</p> <p>S1 well developed @ 60 degrees to core axis RQD throughout is approx. 40 a few oxidized fractured intervals unit is sheared (// S1) throughout</p> <p>trace pyrite locally 3.00-5.00 7648 trace pyrite in volcanics with minor quartz carbonate alteration, sericitic alteration (check sample)</p> <p>6.50-7.80 7649 trace pyrite associated with 20cm, sub // foliation, quartz carbonate vein with chlorite, tourmaline (2%) + trace fuchsite + 12cm qser vein with chlorite + 1% blebby oxidized pyrite</p> <p>7.80-8.80 7650 30 centimeter quartz carbonate vein with ankerite, tourmaline, chlorite + trace fuchsite (+ minor hydromuscovite ?)</p> <p>8.80-9.60 7651 banded altn; sericite, chlorite, quartz carbonate, oxidization ... Trace pyrite</p>
9.60	10.70	<p>FELSIC INTRUSIVES UNDIFFERENTIATED Very coarse grained clastic unit ... Arenitic or possibly porphyry; quartz clasts up to 3mm are rounded. Unit is pervasively oxidized for upper 3/4 therefore orange, unaltered portion is grey & polymictic (?) contacts are distinct pervasive oxidization in upper 3/4 ... Orange colour minor chlorite stringers minor quartz carbonate alteration</p> <p>relatively competent unit a few foliation // fracs (60 degrees to core axis)</p> <p>trace pyrite 9.60-10.70 7652 trace pyrite in coarse grained clastic unit</p>
10.70	16.10	<p>MAFIC VOLCANICS UNDIFFERENTIATED Weakly altered, laminated, dark green fine grained mafic volc rocks with no discernable primary features</p> <p>strong chloritic alteration throughout weak foliation // quartz carbonate alteration up to 10% minor foliation // magnetite bands @ 13-14meters, 3-10mm, black, pure magnetite</p> <p>S1 @ 60-65 some locally developed NE striking 45 degrees dipping cleavage, locally flattens (S2?)</p> <p>trace pyrite associated with quartz carbonate alteration 13.60-15.10 7653 check sample, 3 magnetite bands in volcanics with approx. 10% quartz carbonate</p>

From	To	Geological Log
16.10	29.90	<p>alteration</p> <p>MAFIC VOLCANICS UNDIFFERENTIATED</p> <p>Pale grey-green, highly altered mafic volcs. The upper portions of the interval are undoubtedly volcs & the lower portions sediments, the contact is obscured by alteration</p> <p>strong sericitic alteration throughout, both pervasive & banded strong local ankeritic alteration in foliation // bands & constituent in larger quartz carbonate veins abundant quartz carbonate alteration, flooding and a few larger veins, often coddled ankerite minor fuchsite alteration, wispy & foliation // locally silicification is locally strong around quartz carbonate veins minor oxidization around a few frac, minor tourmaline variable dravite associated with quartz carbonate veins S0/S1 45-55 degrees to core axis S2 (flat) locally developed approx. End of interval (sediments) moderately sheared throughout small foliation // FAULT ZONE 17.0-17.5meters ESE striking N 45 dipping a few ox'd NW striking vert faults / fractures fabric locally developed sericitic sections host up to 2% blebby, dirty pyrite larger quartz carbonate veins host dravite + minor bright blebby pyrite</p> <p>16.10-17.00 7654 sheared, sericitic volcs with numerous fuchsite, quartz carbonate alteration trace pyrite</p> <p>17.00-17.50 7655 sheared, sericitic volcs with FAULT ZONE</p> <p>17.50-18.50 7656 sheared, sericitic volcs with numerous fuchsite, quartz carbonate alteration trace pyrite</p> <p>18.50-19.50 7657 25cm quartz carbonate vein with coddled ankerite + 1% coarse blebby pyrite</p> <p>19.50-20.00 7658 2, 1-2cm quartz carbonate veins at 85 degrees to core axis</p> <p>20.00-21.00 7659 30cm quartz carbonate vein with strong associated sericitic alteration, coddled ankerite, coarse grained bright blebby pyrite + minor dirty blebby pyrite</p> <p>21.00-22.00 7660 S2 foliated sed, with 10cm irregular quartz carbonate (ankerite) very + 30cm oxidized quartz carbonate vein with trace dravite (?) 1% dirty blebby pyrite in sericite + 1% coarse grained bright @ vein</p> <p>22.00-23.10 7661 20cm foliation // quartz carbonate vein (coddled ankerite) + 2cm quartz ankerite dravite vein with 4-5% blebby dirty sulfide locally, oxidized throughout</p> <p>23.10-24.10 7662 1% very fine grained pyrite locally in sericitic ? (sediments?) minor oxidization approx. NW striking vert fractures</p> <p>24.10-25.00 7663 1% very fine grained pyrite locally in sericitic ? (sediments?) minor oxidization approx. NW striking vert fractures + 20cm coloured band (purplish, taupeish) with higher pyrite</p> <p>25.00-26.00 7664 1-2% coarse grained dirty blebby pyrite throughout sericitic / ankerite zone + 4% coarse grained bright pyrite over 12cm</p> <p>26.00-27.00 7665 trace very fine grained pyrite in S2 crenulated sericitic banded sediments</p> <p>27.00-28.00 7666 trace very fine grained pyrite in sericitic sediments</p> <p>28.00-29.00 7667 same as above</p> <p>29.00-29.90</p>

From	To	Geological Log
		7668 same as above
29.90	109.10	<p>GREYWACKES, SILTSTONE/MUDSTONE Centimeter bedded, grey to pale grey, locally dark grey fine-medium grained greywackes with locally abundant dark grey argillaceous beds (graphitic?) alteration is local & relatively weak , thick medium grained unit 95-96.5 graded bedding indicated tops down hole, a few thicker, coarse bedded GREYWACKES units very weak pervasive sericitic alteration very weak patchy pervasive ankeritic alteration local quartz carbonate alteration minor local oxidization weak, local silicification S0 @ 55-65 degrees to core axis S1 @ ESE N 65 ? S2 (flat) locally developed, N-NE dipping minor frac'd zones @ 31m (oxidization) 48-50meters a few NE veins meter trace pyrite associated with quartz carbonate / sericitic alteration, coarse blebby pyrite in argillitic sections 36.50-37.20 7669 trace pyrite associated with moderate sericite, quartz carbonate alteration + 3cm coddled, ankeritic quartz carbonate vein 46.00-47.00 7670 30cm coddled ankerite quartz carbonate vein (irregular) associated with folding (S2) + sericitic, quartz carbonate alteration 55.00-56.00 7671 trace fine grained + bright blebby pyrite in weak sericitic alteration + argillites 57.80-59.30 4018 pervasive ankerite alteration of quartz carbonate vein with asoc. Pyrite in argillites with sericite alteration 59.30-60.30 7672 trace pyrite in weakly silicified / sericitic zone 60.30-61.70 4019 with silicification, very fine quartz carbonate vein minor argillite occasional pyrite bleb 66.20-67.20 7673 same as above 80.00-81.00 7674 coarse grained unit with trace coarse blebby pyrite 90.40-91.40 7675 weakly bleb zone with weak sericitic silicic alteration, trace dirty pyrite 95.00-96.00 7676 check sample of silicified medium grained unit</p>
109.10	110.70	<p>GREYWACKES Moderately altered sediments, sericitic & quartz carbonate alteration, pale green, no bedding visible moderate sericitic alteration throughout minor quartz carbonate alteration as irregular grey veinlets minor ankeritic bands structure as above 109.10-109.90 7677 moderately altered sediments...No pyrite 109.90-110.70 7678 same as above</p>

From	To	Geological Log
110.70	119.10	<p>GREYWACKES FELSIC INTRUSIVES UNDIFFERENTIATED Pale grey, strongly altered, coarse grained clastic unit (porphyry?) with no observable sedimentary features quartz clasts 1-3mm & rounded dominate a few larger quartz carbonate veins. Interval looks porphyritic locally</p> <p>strong silicification throughout very weak sericite alteration (overprinted by silicification) locally abundant quartz carbonate alteration as veinlets & a few larger quartz carbonate veins (coddled ankerite) weak ankerite throughout strong in vein S0 @ 70 degrees to core axis a few fracturess // to core axis RQD 30-40 a few NNW sriking, vert fractures</p> <p>trace-1% very fine grained pyrite disseminated throughout...Parts should run 110.70-111.70 7679 contact between serd/sild GREYWACKES (medium grained) & coarse grained clastic unit 111.70-112.70 7680 trace-1% (local) pyrite in silicified coarse clastic 112.70-113.60 7681 trace very fine grained disseminated pyrite in silicified coarse clastic GREYWACKES with core axis // fractures 113.60-114.60 7682 3% local blebby pyrite, porphyritic looking GREYWACKES with abundant irregular quartz carbonate alteration 114.60-115.50 7683 same as above 115.50-116.40 7684 2% fine grained pyrite associated with S2 controlled quartz carbonate vein (coddled ankerite) + 25cm coddled ankerite quartz carbonate vein (orientation unknown) 116.40-117.40 7685 1% local fine grained pyrite in silicified coarse clastic + 25 quartz carbonate vein 117.40-118.30 7686 trace pyrite in silicified coarse clastic 118.30-119.10 7687 same as above</p>
119.10	141.80	<p>GREYWACKES Moderately sericitized / quartz carbonate altered GREYWACKES with only remnant sedimentary textures observable green-grey to green in colour fine-medium grained</p> <p>sericitic alteration is moderate throughout , strong locally both pervasive & banded ankerite is locally strong, banded otherwise weakly pervasive very minor local silicic alteration quartz carbonate veins are often coddled ankerite upper 3.5meters are strongly sericitized</p> <p>S0 @ 75 degrees to core axis S1 EW N 45 locally well developed a few NE verts calcite veinlets S2 flats locally developed (crenulated cleavage) sericitic FAULT ZONE from 139.0-140.0</p> <p>1-2% blebby, dirty pyrite in first 3.5 meters trace bright blebby pyrite associated with quartz carbonate alteration</p>

From	To	Geological Log
		<p>119.10-120.10 7688 1% blebby dirty pyrite in very sericitic altered GREYWACKES</p> <p>120.10-121.10 7689 same as above with minor quartz carbonate alteration</p> <p>121.10-122.10 7690 1% blebby dirty pyrite in very sericitic altnd GREYWACKES</p> <p>122.10-123.60 7691 trace pyrite in same</p> <p>135.80-137.30 7692 check sample trace blebby bright pyrite</p> <p>138.00-139.00 7693 trace blebby pyrite in strongly sericitic / quartz carbonate altered GREYWACKES</p> <p>139.00-140.00 7694 FAULT ZONE with trace pyrite, strong sericitic alteration</p> <p>140.00-141.50 7665 strong sericitic & quartz carbonate alteration</p>
141.80	145.70	<p>SILTSTONE/MUDSTONE, GREYWACKES Dark grey-black, fine-medium grained argillites with minor GREYWACKES throughout the unit could be conductive although ohmmeter tests are negative strongly developed foliation obliterates bedding relationships</p> <p>minor graphitic alteration (?) very weak sericitic & quartz carbonate alteration</p> <p>S0 @ 75 degrees to core axis S1 (?) ESE vertical (?) very minor, moderately developed S2</p> <p>trace bright, blebby pyrite 142.50-143.50 7696 check sample argillites with trace pyrite</p>
145.70	235.20	<p>breccia GREYWACKES Grey green, weakly altered rocks of uncertain origin. Erratic grain size variation may indicate sedimentary origin (thick bedded fine - medium grained greywackes) but sericitic alteration & overall look indicate volcanics (no leucoxenes) tops down hole, sedimentary character tops up with depth, 209 definitely sedimentary thin, polymictic sheared breccia from 209.8-210.1 meters weak pervasive sericitic alteration throughout, locally banded weak pervasive, moderate patchy ankeritic alteration minor quartz carbonate alteration as patches & veinlets</p> <p>S0 @ 60 degrees to core axis S1 poorly developed developed? ESE N 50 degrees cren with minor movement NNW vertical S1 folded about S2 axis 228 meters trace fine grained & blebby pyrite locally</p> <p>152.00-153.00 7697 check sample .5% pyrite (very fine grained disseminated) over 20cm</p> <p>155.80-157.30 7698 check sample .5% very fine grained pyrite + 1% coarse grained blebby (local) associated with quartz carbonate</p> <p>160.50-161.00 7699 1% very fine pyrite associated with sericitic & minor quartz carbonate alteration</p> <p>176.00-177.00 7700 NNW crenulated 3 with 1% coarse pyrite</p> <p>177.40-178.40 7701 meter-coarse grained GREYWACKES with 1% local pyrite</p>

From	To	Geological Log
		209.70-210.10 7702 polymictic breccia with trace-1% coarse grained pyrite 220.80-221.30 7703 12cm foliation // quartz carbonate vein 229.20-229.70 7704 1% coarse blebby pyrite + 15cm foliation // qank vein
235.20	248.70	<p>GREYWACKES Pale green, moderately sericitic altered GREYWACKES sediments with ill defined sedimentary features and locally abundant dirty blebby pyrite mineralization</p> <p>pervasive moderate ankeritic alteration, locally stronger/banded 2-3% quartz carbonate alteration as irregular veinlets local strong silicification associated with fractured zone @ 240 meter banded moderate ankeritic alteration local banded sericitic alteration, + pervasive moderate sericitization throughout, a few thin chlorite veinlets locally S0 @ 75 degrees to core axis S1 NE striking N 50 dip (?) locally warped about S2 (flat) small silicified fracture zone @ 240 meter</p> <p>up to 2% blebby dirty pyrite associated with sericitic alteration 235.20-236.20 7705 sericite quartz carbonate & ankerite alteration with trace pyrite 236.20-237.20 7706 stringer pervasive sericitic alteration with minor quartz carbonate alteration 237.20-238.20 7707 band sericite + quartz carbonate alteration trace pyrite 238.20-239.20 7708 band sericite + quartz carbonate alteration trace pyrite with trace dirty blebby pyrite near end of interval 239.20-240.20 7709 trace dirty blebby pyrite + 30cm silicified frac zone with trace very fine grained disseminated pyrite 240.20-241.20 7710 pervasive sericitic alteration + minor quartz carbonate alteration 2% dirty blebby pyrite 241.20-242.20 7711 pervasive sericitic alteration + minor quartz carbonate alteration 1% local dirty blebby 242.20-243.20 7712 same as above 243.20-244.20 7713 same as above 244.20-245.70 7714 pervasive sericitic alteration + minor quartz carbonate alteration trace dirty blebby pyrite 245.70-247.20 7715 pervasive sericitic alteration + minor quartz carbonate alteration trace 247.20-248.70 7716 pervasive sericitic alteration + minor quartz carbonate alteration trace dirty blebby pyrite</p>
248.70	253.40	<p>GREYWACKES Grey-locally black, fine - medium grained GREYWACKES with minor argillitic material locally (black)</p> <p>very minor sericitic alteration minor quartz carbonate alteration</p> <p>S1 N dipping 45 degrees (?)</p>

From	To	Geological Log
		argillaceous intervals well foliated trace blebby pyrite throughout
253.40	256.50	GREYWACKES,SILTSTONE/MUDSTONE Moderately altered green to grey green zone approx. To a few larger quartz carbonate veins bedding is locally observable. Minor argillite near end of interval strong sericitic alteration approx. To larger coddled ankerite quartz carbonate veins minor quartz carbonate alteration + a few larger quartz carbonate veins local silicification weak patchy ankerite alteration shearing throughout // foliation (N dipping 50 degrees) quartz carbonate veins SILTSTONE/MUDSTONE,b // to shearing 253.40-254.10 7717 very sericitic, locally silicified shear zone with 1% pyrite + minor quartz carbonate alteration 254.10-254.50 7718 12cm foliation // coddled ankerite quartz carbonate vein with associated pyrite (1%) 254.50-255.90 7719 minor sericitic & quartz carbonate alteration 255.90-256.50 7720 10cm & 3cm quartz carbonate vein (with ankerite) in argillites 1% blebby pyrite
256.50	283.00	SILTSTONE/MUDSTONE, GREYWACKES Grey to black argillites & greywackes sediments with a few quartz carbonate veins bedding shows tops down hole minor graphitic alteration of argillites (?) minor quartz carbonate alteration incl. A few quartz carbonate veins minor calcite alteration patchy minor ankerite in quartz carbonate veins S0 @ 80 degrees to core axis S1 @ vertical (?) or N dipping 35 S2 crenulation (decimeter scale) from 266.2-267.0 minor movement along vert EW fractures (if foliation dips N) trace pyrite locally 268.60-269.40 7721 S2 foliated nose of large quartz carbonate vein (coddled ankerite) trace pyrite + 8cm ankeritic quartz carbonate vein
283.00	305.00	GREYWACKES HIGHLY METAMORPHOSED ROCKS UNDIFFERENTIATED Mixed medium grained GREYWACKES & mafic intrusive (HIGHLY METAMORPHOSED ROCKS UNDIFFERENTIATED) with increasing HIGHLY METAMORPHOSED ROCKS UNDIFFERENTIATED content with depth abundant quartz carbonate associated with HIGHLY METAMORPHOSED ROCKS UNDIFFERENTIATED dike is fine grained & locally weakly magnetic 289.80-290.10 7722 1% pyrite in sugary quartz vein (HIGHLY METAMORPHOSED ROCKS UNDIFFERENTIATED / GREYWACKES contact) 302.20-303.20 7723 check sample of GREYWACKES within diabase apophyses

*** END OF HOLE *** 305.00

HOLE NO: BKP-T-08 SECTION: GRID: WAWAITAN

PROJECT CODE : BLACK PEARL MINERALS INC.
 TENEMENT : HS983
 PROSPECT : WAWAITAN
 GRID : WAWAITAN
 MAP REFERENCE:
 LOCATION : THORNELOE TWP
 HOLE TYPE : DDH

*** DRILLING SUMMARY ***

DDH	0.00 299.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	9/9/96
Date finished:	12/9/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***
 NOMINAL 350.00mN -700.00mE 305.00RL

Pre-collar depth: 299 Final depth: 299.00

Purpose of hole:

Hole status: COMPLETE

Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	175.00	-45.00
50.00	178.50	-42.00
100.00	187.50	-38.00
155.00	190.50	-35.00
200.00	189.50	-33.00
251.00	196.50	-32.00
299.00	200.50	-31.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00 3.00 OVERBURDEN
 3.00 51.30 GREYWACKES
 51.30 127.60 SILTSTONE/MUDSTONE,
 GREYWACKES
 127.60 152.80 SILTSTONE/MUDSTONE,
 GREYWACKES
 152.80 162.00 SILTSTONE/MUDSTONE,
 GREYWACKES
 162.00 177.60 SILTSTONE/MUDSTONE,
 GREYWACKES
 177.60 186.40 QUARTZ VEIN ZONE
 186.40 234.00 GREYWACKES
 234.00 253.10 SILTSTONE/MUDSTONE
 253.10 257.40 GREYWACKES
 257.40 261.20 GREYWACKES
 261.20 278.50 GREYWACKES
 278.50 295.40 SILTSTONE/MUDSTONE
 295.40 299.00 GREYWACKES
 299.00 END OF HOLE



42A06SW2005

2.18336

THORNELOE

060

Checked and signed: BK.P.V.

Date: FEB 18 '98

From	To	Geological Log
0.00	3.00	OVERBURDEN Till
3.00	51.30	GREYWACKES Light grey-dark grey (locally black) centimeter-decimeter bedded fine - medium grained grey wacke 30% black argillite (sub argillite) from 44.2-44.5m tops down hole very weak sericite alteration locally 11.00-12.00 7724 trace pyrite in weak sericite alteration 35.00-36.00 7725 check sample weak sericite alteration
51.30	127.60	SILTSTONE/MUDSTONE, GREYWACKES This broad unit is light grey - light green in colour and shows weak alteration throughout with some short intervals moderately altered, coarse grained, locally polymictic grey wacke from 116.5 to 127.6meter. Alteration consists of weak to moderately pervasive sericite alteration and minor quartz alteration as veinlets. S0 @ 45 - 75 DTCA (S2 crenulated) S1 vert - NE 75N dipping. S2 flat and locally developed at fractures // to core axis, At NE vertical quartz vein. Fracture zone from 109.5 - 111.0m trace pyrite associated with stronger alteration. Minor euhedral pyrite with quartz chlorite pressure shadows @ 57.2 meter 53.00-54.50 7726 weak-moderate 54.50-56.00 7727 weak-moderate with 1% blebby /dirty py/10cm 56.00-57.50 7728 weak-moderate + 10cm of 10% pyrite with chlorite / quartz pressure shadows 59.20-59.90 7729 2% coarse grained euhedral pyrite in very pale sericite alteration (moderate) 70.60-73.10 7730 trace arsenopyrite + pyrite associated with quartz carbonate alteration in weakly altered sediments 73.10-74.60 7731 moderate alteration associated with 2 8cm quartz carbonate veins (irregular 74.60-76.00 7732 weak sericite alteration + minor quartz carbonate 76.00-76.30 7733 small 76.30-77.80 4023 light grey - few coddled quartz carbonate veinlets. 77.80-79.30 4024 light grey as above 82.40-83.80 4025 light grey weak ankerite alteration 83.80-85.30 4026 very with pervasive ankerite alteration few quartz carbonate vein coddled 85.30-86.20 4027 meter pervasive ankerite alteration as above 86.20-87.70 4028 with sericite 87.70-89.20 4029 light grey coarse grained 89.20-90.70

From	To	Geological Log
		<p>4030 highly banded moderate quartz carbonate vein coddled 90.70-92.20 4031 light grey medium grained to coarse grained few coddled quartz carbonate vein with pervasive ankerite 1% fine grained pyrite along blebs / banding few euhedral pyrite bright yellow 92.20-93.00 4032 grey few coddled quartz carbonate vein locally moderate with minor sericite alteration few bleb ankerite pyrite // to bands but yellow euhedral pyrite 93.00-94.00 7734 check sample 94.00-95.20 4033 light grey areas local oxidized fine coddled coarse quartz vein weak sericite trace pyrite coarse sericite units with silicification 95.20-96.70 7735 check sample 96.70-98.20 4034 meter sericite alteration locally weak silicification in coarse units some coddled quartz carbonate vein trace arsenopyrite? 98.20-99.70 4035 light grey yellow grey strong sericite alteration locally moderate quartz carbonate vein trace foc blebby along // foliation 99.70-101.10 4036 same as above 103.80-104.00 4037 grey very fine grained pyrite euhedral & fractures ankerite // foliation 107.10-108.60 4038 grey stringer quartz vein - minor sericite locally minor ankerite alteration 108.60-110.00 4039 light grey - grey some coddled quartz carbonate vein with sericite alteration and quartz carbonate veins trace pyrite trace arsenopyrite . 114.00-115.50 4040 grey argillite bands few coddled quartz carbonate vein ankerite and alteration small alteration frac pyrite // foliation 115.50-116.50 7736 check sample minor argillite with minor quartz carbonate alteration trace blebby chalcopyrite 116.50-118.00 4041 light grey with silicification very fine coddled quartz carbonate vein weak sericite & ankerite alteration trace pyrite 118.70-119.50 7737 check sample coarse grained GREYWACKES unit</p>
127.60	152.80	<p>SILTSTONE/MUDSTONE, GREYWACKES Weakly altered SILTSTONE/MUDSTONE and GREYWACKES with 40% argillite (black) especially near the centre of the interval. Tops are down hole. Minor weak graphitic alteration associated with the argillite. Locally weakly sericitic. Minor quartz vein alteration S0 @ 75 deg DTCA Locally fractured from 134 - 137m 131.70-132.30 7738 irregular quartz carbonate alteration network 136.20-137.20 7739 minor silicification + sericitization in weakly fractured zone 151.30-152.80 7740 minor quartz carbonate alteration</p>

From	To	Geological Log
152.80	162.00	<p>SILTSTONE/MUDSTONE, GREYWACKES Light grey to light green / grey, dominantly coarse grained sediments. Thick bedded and moderately to locally strongly altered. Pervasive moderate to locally strong alteration with banding // to quartz carbonate vein. Locally strong silicic alteration below upper quartz vein. Moderate quartz carbonate alteration including abundant irregular grey veinlets + 2 large and numerous quartz carbonate vein. (Coddled ankerite, minor chlorite and hydromuscovite). Moderate, patchy ankerite. Alteration locally banded Structural relationships obscured by alteration. S1 @ 60deg TCA 1-2% dirty blebby pyrite, trace arsenopyrite 152.80-153.60 7741 >40cm coddled ankerite quartz carbonate vein .5% interstitial pyrite 153.60-154.30 7742 strongly silicified 154.30-155.30 7743 sericitized weakly silicified GREYWACKES with 3cm quartz carbonate vein + abundant small quartz carbonate veins & alteration 155.30-156.30 7744 moderately altered sediments with 10cm quartz carbonate alteration 156.30-157.30 7745 1% very fine grained disseminated pyrite approx. Equal to 10cm quartz carbonate vein (85 degrees to core axis) 157.30-158.30 7746 .5% fine medium grained pyrite disseminated in moderate altered coarse grained GREYWACKES 158.30-159.20 7747 .5% fine medium grained pyrite disseminated in moderate altered coarse grained GREYWACKES 159.20-160.10 7748 .5% fine medium grained pyrite disseminated in moderate altered coarse grained GREYWACKES 160.10-161.10 7749 .5% fine medium grained pyrite disseminated in moderate altered coarse grained GREYWACKES 161.10-162.00 7750 .5% fine medium grained pyrite disseminated in moderate altered coarse grained GREYWACKES</p>
162.00	177.60	<p>SILTSTONE/MUDSTONE, GREYWACKES 40% black very fine grained greywackes with local argillite . Thick bedded, tops down hole. Weak sericitic alteration. Minor quartz carbonate alteration. 10 centimeter quartz carbonate vein @ 172.8 to 172.9m. Weak patchy ankerite alteration. S0 equal to 80 - 85deg TCA S1 equal to is vertical EW N side down S2 equal to flat small vuggy quartz carbonate vein at 171.0m trace blebby pyrite throughout. 171.00-172.00 7751 check sample 172.70-173.10 7752 10cm quartz carbonate vein</p>
177.60	186.40	<p>QUARTZ VEIN ZONE Weakly altered grey wacke with a few large quartz veins, extensions of quartz veins with old mine workings (?). The rocks are similar to unit above with locally abundant chloritic argillite sections.</p>

From	To	Geological Log
		<p>Locally weakly sericitic alteration. Locally chloritic. Negligable silicification outside of quartz vein . Four large quartz carbonate veins with abundant attendant quartz carbonate alteration. Veins are composed of coddled ankerite and quartz.(10/90%) with minor hydromuscovite. S0 equal to 70-85deg DTCA but often warped. S1 equal to north dipping 55deg EW striking. Minor fracturing associated with quartz carbonate vein. Locally sheared. Locally strong flat S2 Minor north - south quartz carbonate vein. Trace blebby pyrite throughout. Quartz veins are generally barren. 177.60-178.00 7753 abundant irregular quartz carbonate alteration over 12cm 178.00-178.70 7754 65 centimeter quartz carbonate vein ct's 85 & 70 178.70-179.70 7755 4 centimeter quartz ankerite vein vein (60/40%) + 1% blebby pyrite in S2 deformed argillitic (chloritic) sediments 179.70-180.70 7756 trace blebby pyrite in weakly altered sediments 180.70-181.70 7757 trace blebby pyrite in weakly altered sediments 181.70-182.70 7758 trace blebby pyrite in weakly altered sediments 182.70-183.70 7759 2% coarse blebby pyrite associated with 40 centimeter irregular q ankerite vein + abundant quartz carbonate alteration 183.70-184.70 7760 trace pyrite in argillite with minor quartz carbonate alteration 184.70-185.70 7761 S2 folded argillites with 45 centimeter S2 folded quartz carbonate vein (coddled ankerite) 185.70-186.40 7762 S2 folded quartz carbonate vein over 50cm</p>
186.40	234.00	<p>GREYWACKES Variably grey - centimeter - decimeter bedded fine - medium grained grey wacke 194.60-195.80 7763 5% quartz carbonate alteration trace pyrite 200.80-201.70 7764 small FAULT ZONE with gouge 5% quartz carbonate alteration 203.00-204.50 7765 check sample with minor quartz carbonate alteration 219.50-220.70 7766 check sample with minor quartz carbonate alteration 230.00-231.50 7767 check sample with minor quartz carbonate alteration</p>
234.00	253.10	<p>SILTSTONE/MUDSTONE Very dark grey - black massive to locally laminated very fine grained argillitic sediments. Ohmeter gives no response. Variations in colour may indicate black alteration of otherwise normal grey wacke 235.20-236.20 7768 trace pyrite 8% quartz carbonate alteration in lam'd argillite (check sample) 239.20-240.40 7769 trace blebby pyrite throughout (foliated) minor quartz carbonate alteration 246.00-246.30</p>

From	To	Geological Log
		7770 distinct sericite alteration band
253.10	257.40	GREYWACKES Pale grey green 255.90-257.40 7771 trace dirty blebby pyrite associated with weak-moderate sericite & quartz carbonate alteration
257.40	261.20	GREYWACKES Pale grey rock 257.40-258.80 7772 3% dirty blebby pyrite + 2% very fine grained disseminated in strongly silicified zone 258.80-260.10 7773 weak-moderate alteration - negligible pyrite mineralization 260.10-261.20 7774 3% very fine grained disseminated pyrite + trace ars in strongly silicified zone
261.20	278.50	GREYWACKES Same as grey wacke above (253.1-257.4) with moderate alteration approx. Equal to above 274-275.6m 261.20-262.20 7775 trace dirty blebby pyrite in weakly altered grey wacke 265.90-266.90 7776 minor quartz carbonate alteration in 3 thin localities 274.70-275.50 7777 2% blebby pyrite associated with 6cm coddled ankerite quartz carbonate vein in moderately altered zone
278.50	295.40	SILTSTONE/MUDSTONE Finely laminated to centimeter bedded black argillites & grey fine grained grey wacke tops down hole near EOH 279.30-280.30 7778 highly contorted arg/gryw with 4% quartz carbonate alt incl 2cm 90 degrees to core axis quartz carbonate vein with 1% pyrite structural cut 289.10-290.20 7779 5% quartz carbonate alteration incl 3cm quartz carbonate vein
295.40	299.00	GREYWACKES Very weakly altered grey wacke with indistinct bedding very weak ankerite 296.00-297.50 7780 check sample 297.50-299.00 7781 eoh sample

*** END OF HOLE *** 299.00

HOLE NO: BKP-T-09	SECTION:	GRID: WAWAITAN
-------------------	----------	----------------

PROJECT CODE : BLACK PEARL MINERALS INC.
 TENEMENT : 871715
 PROSPECT : WAWAITAN
 GRID : WAWAITAN
 MAP REFERENCE:
 LOCATION : THORNELOE TWP
 HOLE TYPE : DDH

*** DRILLING SUMMARY ***

DDH	0.00	355.00	BQ
Drill contractor:	NOREX		
Drill rig:			
Date started:	13/9/96		
Date finished:	18/9/96		
Logged by:	BK POLK		
Relogged by:			
Sampled by:			

*** COLLAR COORDINATES AND RL ***

NOMINAL	600.60mN	289.60mE	276.00RL
---------	----------	----------	----------

Pre-collar depth: 355 Final depth: 355.00
 Purpose of hole:
 Hole status: COMPLETE
 Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	175.00	-45.00
50.00	191.50	-41.50
101.00	188.50	-39.50
150.00	197.50	-36.50
200.00	199.50	-35.00
250.00	201.50	-33.50
302.00	199.50	-32.50
350.00	204.50	-31.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	15.00	OVERBURDEN
15.00	33.50	GREYWACKES
33.50	47.40	GREYWACKES
47.40	50.50	GREYWACKES
50.50	70.30	GREYWACKES
70.30	76.50	GREYWACKES
76.50	86.20	GREYWACKES
86.20	93.50	GREYWACKES
93.50	107.50	GREYWACKES
107.50	112.60	GREYWACKES
112.60	115.80	GREYWACKES
115.80	117.70	GREYWACKES,
		SILTSTONE/MUDSTONE
117.70	120.30	GREYWACKES
120.30	126.50	GREYWACKES
126.50	128.00	FAULT ZONE
128.00	135.90	GREYWACKES
135.90	138.70	GREYWACKES
138.70	140.80	GREYWACKES
140.80	159.40	GREYWACKES
159.40	169.60	GREYWACKES



42A06SW2005 2.18336 THORNELOE 070

Checked and signed: <u>BAV</u>	Date: <u>FEB 18 '98</u>
--------------------------------	-------------------------

HOLE NO: BKP-T-09

SECTION:

GRID:WAWAITAN

169.60	171.50	GREYWACKES, SILTSTONE/MUDSTONE
171.50	180.50	GREYWACKES
180.50	236.00	MAFIC VOLCANICS UNDIFFERENTIATED
236.00	237.00	GREYWACKES
237.00	256.70	UPPER ZONE
256.70	258.70	GREYWACKES
258.70	264.20	SILTSTONE/MUDSTONE, GREYWACKES
264.20	278.60	GREYWACKES
278.60	282.70	GREYWACKES
282.70	290.40	GREYWACKES, SILTSTONE/MUDSTONE
290.40	293.50	SILTSTONE/MUDSTONE, GREYWACKES
293.50	302.00	GREYWACKES
302.00	313.20	GREYWACKES
313.20	355.00	HIGHLY METAMORPHOSED ROCKS UNDIFFERENTIATED
355.00		END OF HOLE

Checked and signed: _____ Date: _____

From	To	Geological Log
0.00	15.00	OVERBURDEN
15.00	33.50	<p>GREYWACKES Mixed reddish & green, fine - medium grained grey wacke greywackes with variable alteration throughout. Tops appear to be downhole. Magnetite rich layer at 17.5 meter + local magnetite associated with red alteration</p> <p>50/50 green rock/reddish rock green alteration is probably very weak red overprinting grey grey wacke reddish alteration is hematitic with minor magnetite 4-5% quartz carbonate alteration locally minor oxidization associated with frac zones a few quartz carbonate veins , weak, blebby ankeritic alteration 30-31 meter sericitic & hmc alteration local banded sericitic alteration with epidote colour locally moderate silicification 29.0-33.5 meter a few vuggy sometimes oxidization quartz carbonate veins</p> <p>S0 generally 55-60 degrees to core axis, locally as low as 20 (S2)</p> <p>S2 flat locally well developed minor crenulations // core axis a few vertical EW fractures with minor chlorite highly fractured - 23 meter, numerous thin fracture zones thereafter RQD 0-30</p> <p>trace-1% (local) very fine grained pyrite generally associated with reddish alteration 19.40-20.90 7782 reddish/brown alteration with trace very fine grained disseminated pyrite 23.00-24.00 7783 weak, intermittent reddish brown alteration trace very fine grained disseminated pyrite 24.00-25.50 7784 trace pyrite in banded reddish green, oxidized alteration + 10cm 20% quartz carbonate alteration 25.50-26.00 7785 1% very fine grained pyrite in vuggy zone in greenish rock 29.00-30.00 7786 moderate reddish alteration, silicification for last 3/4 of sample abundant irregular foliation // quartz carbonate alteration, trace magnetite, trace-1% local very fine grained pyrite 30.00-30.70 7787 orange/red-pale brown grey (strongly silicified) alteration with 4-5% irregular, foliation // quartz carbonate alteration trace pyrite , numerous 10 degrees to core axis stringer, 1% locally, trace arsenopyrite 30.70-32.00 7788 orange brown - red alteration 5% quartz carbonate trace pyrite 32.00-33.50 7789 red/purplish alteration 3% quartz carbonate trace pyrite</p>
33.50	47.40	<p>GREYWACKES Variable green , fine-medium grained, locally coarse grained greywackes with local quartz carbonate alteration & fracturing</p> <p>pervasive weak chloritic alteration accounts for colour pale green bleached zones approx. Millimeter faulting</p> <p>up to 5% irregular, blebby quartz carbonate veinlets locally minor local sericitic alteration, sometimes with associated chlorite blebs (<3 meter), pale green</p> <p>S0 S1 @ 50-55 degrees to core axis</p>

From	To	Geological Log
		<p>S2 flat slight NE dip frac zone (vuggy, bleached) from 42.7-43.2 meter frac zone 41.6m vuggy bleached, 45-45.5</p> <p><2% coarse grained blebby pyrite associated with quartz carbonate alteration pale green sericitic zones host 3-5% very fine grained pyrite</p> <p>* sample tags 7790-7803 were used to rush sample a lower interval 41.50-43.00 7804 2 bleached vuggy quartz carbonate fracture zones with 1% coarse grained pyrite 43.00-44.00 7805 3% very fine grained disseminated pyrite over 20cm in pale green sericitic zone 45.70-46.30 7806 2% very fine grained disseminated pyrite over 20cm in pale green sericitic zone + frac zone 47.30-48.30 7807 trace pyrite throughout variably altered (red orange) GREYWACKES, sericitic zones (2+10cm) host 2% very fine grained pyrite</p>
47.40	50.50	<p>GREYWACKES Variable orange/reddish/ & purplish; probably associated with abundant fracturing in upper portion of interval</p> <p>variable weak-moderate reddish purple orange alteration, pordeveloped bonding minor very fine, irregular, quartz carbonate fractures throughout minor chloritic fractures in reddish zones minor vuggy quartz carbonate veins in frac zones, minor blebby chlorite along fracture surfaces red alteration hematitic purple alteration hematitic orange sericitic / hematitic green(dark) chloritic green (pale) sericitic yellow sericitic</p> <p>S0 @ 65 degrees to core axis S1 // S2 slightly N dipping flat top side N bottom side S badly fractured 47.4-49.1 RQD 0 a few S2 fractures</p> <p>trace-1% in purplish red alteration, 2% very fine grained pyrite in sericitic zone @ 47.5 48.30-49.30 7808 same as above 49.30-49.90 7809 dominant chlorite + sericitic alteration, 5cm sericitic band 3% pyrite, trace throughout 49.90-50.50 7810 trace pyrite in purple alteration with vuggy quartz carbonate vein alteration</p>
50.50	70.30	<p>GREYWACKES Variably green, locally weakly-moderately altered, greywacke sediments with local lamination, often sericitic & local coarse grained texture</p> <p>pervasive weak-moderate green colour attributed to chlorite alteration local patchy, sericitization often associated with quartz carbonate veinlets veinlets silicified, sericitic zone from 52.3-52.5, intimate with chlorite orange alteration starts at 60 meter, patchy to end of interval, vuggy qcvnlts associated qchl vein at 66.3 meter, minor foliation // qcvnlts locally small chloritic blebs (<3mm) associated with coarse grained pyrite in weak sericite alteration</p>

From	To	Geological Log
		<p>locally S0 @ 30 to 75 degrees to core axis, generally approx. 55</p> <p>S1 // S2 locally developed, flat, slight N trend (dip) centimeter scale crenulation, locally recumbent, top side N (40 degrees to core axis) a few irregular fractures a few NS fractures with orange alteration RQD throughout 50 or less</p> <p>1% very coarse grained pyrite within thin (<10cm) sericitic zones 2% very fine grained pyrite associated with silicification @ 52.5 meter 51.90-52.90 7811 20cm silicified, sericitic chlorite zone with 2% very fine grained pyrite 53.50-54.00 7812 weak sericite zone with 1% very fine grained pyrite + 1% coarse pyrite with chloritic blebs 64.10-65.40 7813 1% very fine pyrite in patchy sericitic alteration, + .5% coarse grained pyrite locally 66.20-66.60 7814 9cm quartz carbonate vein with abundant chlorite stringers within , ankerite 40% calcite 20% quartz, 20% chlorite</p>
70.30	76.50	<p>GREYWACKES Variable, moderate, green, orange, pale green & reddish alteration in centimeter bedded wackes, the unit is locally weakly magnetic (trace magnetite)</p> <p>banded moderate alteration as described in unit (47.4-50.5) alteration is locally bed or bed series specific (ie. a few sericitic altered beds, a few hematized orange, red...) Minor S0 // or irregular quartz carbonate alteration</p> <p>S0 @ 45 degrees to core axis, locally warped S1 // S2 is pervasive (especially in sericitic units) & fault, crenulations S0</p> <p>up to 3% very fine grained pyrite associated with orange/red alteration 75.00-76.50 7815 3% very fine grained pyrite over 40cm + banded multicolour alteration</p>
76.50	86.20	<p>GREYWACKES Dark greyish green, decimeter bedded medium grained greywackes with only local weak alteration. The unit appears almost massive and is locally weakly magnetic</p> <p>very weak, pervasive, chloritic or chloritic + sericitic alteration wash. Rock is generally quite soft very minor quartz carbonate alteration as foliation // veinlets 1st 1.5 meters of interval show waning alteration from above large quartz carbonate vein (hematized carbonate) @ 77.5 meters</p> <p>S0 @ 65-70 degrees to core axis, poorly developed S1 // S2 poorly developed but pervasive a few core axis // crenulations</p> <p>trace pyrite associated with waning orange alteration above 76.50-77.40 7816 1% very fine grained pyrite + minor quartz carbonate alteration in banded colourful alteration</p>

From	To	Geological Log
		<p>77.40-77.80 7817 20cm quartz / hematite ankerite vein, trace tourmaline, chloritic margin</p> <p>77.80-78.90 7818 banded, waning orange alteration with ankerite & vuggy quartz carbonate alteration trace coarse grained pyrite</p> <p>80.90-81.90 7819 green rock with 2% fine-medium grained pyrite disseminated over 30cm</p>
86.20	93.50	<p>GREYWACKES Very similar to last unit lithologically, with pervasive, weak brown alteration (very weak hematitic alteration?) + minor irregular pink-orange quartz carbonate veins locally weakly magnetic</p> <p>very weak patchy pervasive ankeritic alteration numerous pink-orange cream quartz carbonate veins (thin & irregular or foliation //) very minor orange/brown banded alteration</p> <p>S0 @ 70 degrees to core axis S2 shallow slight NE dip, flat a few NNE striking NW 70 dipping quartz carbonate veins minor NS crenulations minor NNW striking vertical fractures trace 1% very fine grained pyrite locally</p> <p>87.30-88.30 7820 minor brown alteration with trace very fine grained disseminated pyrite + a few pink quartz carbonate veins</p> <p>92.00-93.50 7821 minor brown alteration with trace very fine grained, weakly magnetic</p>
93.50	107.50	<p>GREYWACKES Centimeter greywackes with abundant variable green & red alteration + local bleached sericitic quartz carbonate + pyrite zones (associated with fracture zones) red/orange units are weakly magnetic</p> <p>brown & orange alteration associated with vuggy quartz carbonate veinlets minor local purplish orange alteration qcvs have associated sericite & chlorite strongest alteration associated with quartz carbonate veins & fracture</p> <p>S0 @ 70 degrees to core axis S1 // S2 N dipping flat, locally prevalent foln/S0 // fractures & quartz carbonate veins host (associated with) alteration + mineralization minor NNW cren'n (3-5mm bands) numerous thin fracture zones throughout a few core axis // quartz carbonate veins (thin)</p> <p>up to 5% very fine grained pyrite associated with red alteration or bleb, quartz carbonate, fracture zones</p> <p>98.10-98.50 7822 red/brown alteration with abundant vuggy quartz carbonate alteration 5% very fine grained euhedral pyrite disseminated throughout</p> <p>98.50-99.70 7823 banded green & red/brown alteration, with 4% pyrite (very fine grained euhedral) disseminated throughout</p> <p>99.70-100.10 7824 bleb zone in red alteration 15cm grey vuggy chloritic stringer 3% medium grained euhedral pyrite</p> <p>100.10-100.60</p>

From	To	Geological Log
		<p>7825 irregular 1-2cm curved quartz carbonate vein with 15% sericite, minor chlorite trace pyrite 102.50-104.00 7826 banded purplish, brown, green + orange alteration trace pyrite 105.50-106.50 7827 banded vuggy quartz carbonate vein 106.50-107.50 7828 same as above</p>
107.50	112.60	<p>GREYWACKES Strongly & variably altered, sheared (strongly), sediments (?) well laminated with no distinguishable bedding features. Colour is highly variable black, white, salmon, dark green, light green, red, brown, abundant magnetite</p> <p>highly variable, laminated, multi coloured alteration semi massive magnetite over 10cm 109.1-109.2 marks contact of zone sericitic, chloritic, quartz carbonate millimeter ankeritic, hematitic, albititic (?) quartz carbonate vein network near end of interval with attendant silicification minor oxidization associated with vuggy quartz carbonate vein pale grey alteration intimate with orange @ quartz carbonate vein network lamination (S1 S0?) @ 75-80 degrees to core axis local NNW crenulations E side S intersection lineation E 10-15 degrees</p> <p>trace-2% fine-coarse grained euhedral pyrite disseminated throughout 107.50-108.40 7829 banded, NS frac'd (possibly previously silicified), sericitic, hematitic alteration 2% fine grained pyrite locally 108.40-109.10 7830 approx. With vuggy quartz carbonate veins 109.10-109.90 7831 strongly laminated, variable alteration with massive magnetite over 10cm 109.1-109.2, ox'd vuggy quartz carbonate veins 109.90-110.90 7832 orange + green banded alteration, salmon near end of interval .5% pyrite 110.90-111.90 7833 salmon then red & green, then pale grey (?) with chloritic blebs 111.90-112.60 7834 1% coarse grained pyrite in 25cm irregular, vuggy, hematite haloed quartz carbonate vein, dull grey alteration approx. As well, vc calcite, local silicification</p>
112.60	115.80	<p>GREYWACKES Fairly massive, dark green, medium grained grey wacke (or possibly mafic flows). Distinct coarse pin-point (carbonate(?) ankerite?) alteration with associated hematitic blebs</p> <p>pervasive weak to moderate chloritic alteration distinctive coarse grained pin-point/snowflake carbonate alteration, non-reactive ... Albite? locally abundant quartz carbonate alteration, often with minor hematitic alteration associated, sometimes vuggy S0 & S not developed a few S2 // quartz carbonate veins (quartz albite?) a few core axis // quartz carbonate veins (quartz albite) minor fracturing throughout</p> <p>trace pyrite in wallrock approx. Quartz carbonate veins 114.80-115.80 7835 abundant, irregular quartz carbonate (calcite) alteration, core axis // veinlet, very vuggy, + abundant pin-point albite (?) alteration</p>

From	To	Geological Log
115.80	117.70	<p>GREYWACKES, SILTSTONE/MUDSTONE Multi coloured, pink & green, laminated grey wacke, argillite, 8cm pink coarse clastic unit</p> <p>strong sericitic alteration with quartz carbonate & chlorite + ankeritic alteration, overprinted by local, orange, hematitic alteration</p> <p>S0 @ 85-90 degrees to core axis S1 // S2 crenulated locally NS, core axis // crenulation</p> <p>trace-1% very fine grained pyrite disseminated throughout 115.80-116.80 7836 trace pyrite 8cm, coarse clastic hematized unit 116.80-117.70 7837 trace pyrite, NS crenulations</p>
117.70	120.30	<p>GREYWACKES Approx. To unit of grey wacke (112.6m-115.8m)</p>
120.30	126.50	<p>GREYWACKES Strongly orange-orange/brown pervasive, hematite alteration abundant, irregular, non-reactive quartz carbonate alteration very minor local magnetite as fine fracture fill minor local, intimate quartz sericite alteration...Pale grey, massive looking rock looks previously silicified S0 & S1 variable 45-60 degrees to core axis a few NE striking vert fracs, some with magnetite S2 locally developed centimeter crenulations numerous foliation // fractures throughout RQD 0-20</p> <p>trace-1% fine grained disseminated pyrite 120.30-121.40 7838 transitional rock sericitic, minor orange alteration + pinpoint alteration trace pyrite 121.40-122.40 7839 orange + brown alteration 5% quartz carbonate alteration 122.40-123.90 7840 strong orange alteration, NS frac (E side N?) 1% fine grained disseminated pyrite 123.90-125.30 7841 strong orange alteration 1% fine grained disseminated pyrite 125.30-126.50 7842 moderate orange + grey alteration 5% quartz carbonate alteration trace pyrite</p>
126.50	128.00	<p>FAULT ZONE Very chloritic, highly gouged, locally brecciated fault zone broken quartz carbonate vein pieces throughout ... Minor lost core</p> <p>strong fault gouge throughout, hydrated & very soft minor sericitic alteration locally remnant quartz carbonate alteration (pieces of veins) minor remnant brown alteration</p> <p>FAULT ZONE on S2 axis (?) flat, S dipping top side N RQD 0-30</p> <p>trace pyrite throughout 126.50-127.90 7843 trace pyrite in FAULT ZONE</p>

From	To	Geological Log
128.00	135.90	<p>GREYWACKES Variable green, grey-green, volcanic looking sediments.</p> <p>Intermingled chloritic & sericitic alteration minor foliation // quartz carbonate veins (quartz dominant) , minor fine chlorite stringers associated</p> <p>S0 @ 85-90 degrees to core axis S1 // S2 locally developed, centimeter-decimeter cren'n minor NS cren'n</p> <p>trace pyrite associated with quartz carbonate alteration</p>
135.90	138.70	<p>GREYWACKES Dark green, massive rock ... Same as (112.6m - 115.8m & 117.7m - 120.INTERMEDIATE VOLCANIC MASSIVE FLOWS) with large quartz carbonate veins over .8 meters 137.INTERMEDIATE VOLCANIC MASSIVE FLOWS - 138.ULTRAMAFIC MASSIVE FLOWS</p> <p>same as units mentioned above 137.30-138.10 7844 4 5-12cm quartz carbonate veins with associated sericitic, hem'c, ankeritic (all carbonate lcky) minor hydromuscovite-no pyrite visible</p>
138.70	140.80	<p>GREYWACKES Same as 128.0-135.9</p> <p>highly crenulated quartz carbonate vein @ 140.2, foliation // (EW vertical)</p>
140.80	159.40	<p>GREYWACKES Mixed alteration, intervals of green enveloping type schisty alteration & red coarse clastic units</p> <p>bimodal alteration green- lam'd chlorite sericite quartz carbonate alteration locally pale with foliation // chloritic blebs, a few quartz carbonate veins red - reddish orange - reddish brown alteration often but not always associated with coarse clastic units often sericitic along edges, a few quartz carbonate veins, but not always generally ankeritic throughout</p> <p>S0 @ 45-50 generally, local warping visible in lam'd green alteration S2 crenulated prevalent locally a few vert EW striking crosscutting quartz carbonate veins RQD 80-90 throughout</p> <p>trace-1% very fine grained pyrite locally throughout, a few quartz carbonate veins with minor tourmaline</p> <p>142.10-143.10 7845 red coarse clastic unit with minor bright green sericitic alteration trace 30cm, quartz carbonate vein + sericite alteration zone with minor tourmaline 140.8-143.1 red & coarse grey wacke with 40cm quartz carbonate vein 143.10-143.80 7846 highly lam'd quartz carbonate, chlorite, sericite alteration (schist) S2 crenulated laminated chlorite, quartz carbonate schist 143.80-144.80 7847 red, coarse clastic unit, hematized millimeter green alteration 1% seamy pyrite locally associated with quartz carbonate alteration red coarse clastic unit 146.50-147.50 7848 laminated green alteration dominant, crenulated trace pyrite 146.1-149.9 mixed 147.50-148.50 7849 mixed with 3, 5-10cm coarse clastic orange units</p>

From	To	Geological Log
		<p>148.50-149.50 7850 weak orange alteration minor magnetite</p> <p>153.70-154.70 7851 mixed weak orange and grey sericitic alteration trace-1% pyrite locally 149.9-153.9 weakly schistose green alteration mild laminations</p> <p>153.9-154.5 red coarse clastic</p> <p>154.70-155.30 7852 unusual grey banded alteration (chlorite, sericite, albite) trace coarse grained pyrite throughout 154.5-158.7 weakly schistose-strongly schistose green alt'd lam'd</p> <p>155.30-156.40 7853 green grey laminae alteration + minor alteration approx. 7852 chloritic blebs</p> <p>156.40-157.30 7854 dark green chloritic zone with minor pure sericitic alteration associated with irregular 2-3(?) centimeter quartz carbonate vein // core axis, minor pin-point alteration</p> <p>157.30-158.30 7855 grey alteration minor pin-point alteration + green lam'd alteration with abundant sericite thin pale red zone (not coarse clastic)</p> <p>158.30-159.40 7856 red zone with sericitic shoulders, locally coarse clastic .5% pyrite locally</p> <p>reddish GREYWACKES, not coarse clastic</p>
159.40	169.60	<p>GREYWACKES Typical, banded altered sediments ... No bedding features remain. The unit is variably dark green-green grey with a few quartz carbonate veins</p> <p>moderate pervasive sericitic alteration + strong, banded sericite throughout, pure approx. Quartz carbonate veins band of ankeritic alteration, almost pure locally, quartz carbonate veins are 50% ankerite, 50% quartz banded quartz carbonate alteration weak silicification below quartz carbonate veins S0 @ 50-80 degrees to core axis, generally 75 S1 // S2 locally observable as centimeter scale cren'n, movement top side N minor vertical movement S side down</p> <p>trace pyrite locally, a few quartz carbonate veins</p> <p>159.40-160.40 7857 >5cm foliation // S2 folded sericitic contact very fine silver mineral along fracs in quartz carbonate vein (very fine) - analyze for Ag</p> <p>162.30-162.60 7858 irregular, 1-3cm , quartz carbonate vein with ankerite + pure sericite contacts</p> <p>165.50-167.00 7859 3, foliation parallel quartz carbonate veins , with ankerite + sericitic contacts, trace hydromuscovite trace pyrite + weak silicification below veins</p>
169.60	171.50	<p>GREYWACKES, SILTSTONE/MUDSTONE Similar lithological unit with abundant black argillites or a subsequent graphitic alteration</p> <p>pervasive black alteration (?) sericitic, ankeritic & millimeter quartz carbonate alteration minor silicification irregular quartz carbonate alteration locally S0 S1 @ 80 degrees to core axis S2 crenulation minor core axis // NS fracturing small foliation // frac zone @ 171 meters</p>

From	To	Geological Log
		169.60-171.50 7860 trace blebby coarse pyrite in black argillite trace pyrite
171.50	180.50	GREYWACKES Typical banded, strongly ankeritic sediments and local silicification alteration & structure approx. To unit GREYWACKES 159.4-169.6meters 173.70-174.70 7861 band sericitic ankeritic & millimeter-silc alteration 175.00-176.00 7862 1% local dirty blebby pyrite in strong grey alteration sericitic (?) 178.00-179.00 7863 check sample
180.50	236.00	MAFIC VOLCANICS UNDIFFERENTIATED Dark green, massive, volcanic (mafic) flows. Local grainy, texture may indicate a sedimentary nature, but for geologys sake a volcanic monachre has been attached. Min sedimentary looking units (10-20 centimeter) may be tuffaceous. More chloritic near end of interval strong pervasive chloritic alteration throughout 1- 5% foliation // quartz carbonate alteration local pin-point alteration a few large quartz carbonate veins , calcite alteration is weak & pervasive one meter of brown/orange alteration, sharp contacts , 216-217 meter minor bands of magnetite, massive to finely disseminated, often with pyrite (218-220) minor oxn 194-197 (of quartz carbonate veins) S1 @ 80 degrees to core axis S2 occassionally evident, a few NS core axis // fractures competent rock trace pyrite locally, massive pyrite band associated with abundant magnetite near end of interval 201.50-203.00 4042 dark green -dirty blebby veins trace pyrite blebby & ??? euhedral 203.00-203.60 7864 1% coarse grained pyrite approx. Silicification + sericitic alteration 203.60-204.10 7865 25cm quartz carbonate vein 30% massive black tourmaline, abundant ankerite trace hydromuscovite 204.10-205.10 4043 205.10-206.00 4044 dark green chlorite quartz carbonate vein, tourmaline with sericite fine grained pyrite often disseminated along // bands 208.00-209.00 7866 abundant pin-point alteration, tuffaceous unit (?) trace disseminated pyrite 213.20-214.20 7867 check sample with 2cm, 5% pyrite in quartz carbonate alteration 216.00-217.00 7868 secondary red hematite alteration of volc numerous chloritic fracture fill 222.90-224.00 7869 abundant foliation // quartz carbonate, magnetite, massive pyrite millimeter throughout 224.00-225.00 7870 same as above 231.90-232.90 7871 strongly silicified zone over 12cm 235.00-236.00 7872 bracket sample around strongly altered zone

From	To	Geological Log
236.00	237.00	<p>GREYWACKES Moderately sericite, quartz carbonate, chlorite altered sediments, sheared weakly // foliation</p> <p>strong, bright yellow green, sericitic alteration throughout, locally pure & banded a few bands of chlorite near top of interval 30% quartz carbonate alteration bands, foliation // , abundant ankeritic alteration minor pinkish alteration abrupt ankeritic alteration change from very weak in volcanics above to strong in this unit</p> <p>S0 @ approx. 85 degrees to core axis S1 // S2 locally developed as centimeter scale warping & cren'n</p> <p>trace seamy + .5% coarse grained euhedral disseminated pyrite 236.00-237.00 7873 moderate banded sericitic, ankeritic & quartz carbonate alteration .5% coarse grained + trace seamy pyrite</p>
237.00	256.70	<p>UPPER ZONE Strong alteration of various types, highly variable colour green, grey, orange, orange with black, reddish, ochre. Numerous quartz carbonate veins & locally abundant pyrite mineralization</p> <p>S0 @ 80-85 degrees to core axis S1 // S2 a few fractures numerous fractures associated with black, orange porphyritic (?) zones</p> <p>up to 20% fine grained pyrite associated with quartz carbonate alteration locally 237.00-238.00 7874 trace pyrite in grey silica /serc / ankeritic alteration with 10-20cm silicified zones</p> <p>grey/taupe sericitic / silica alteration, silicification in intervals 238.00-239.00 7875 trace pyrite in grey silica / sericitic / ankeritic alteration with 10-20cm silicified zones</p> <p>239.00-240.00 7876 typical green laminated & grey alteration trace pyrite a few quartz carbonate veins</p> <p>typical banded sericite, quartz carbonate & ankerite, green laminated alteration with numerous large quartz carbonate veins 240.00-241.00 7877 typical green laminated & grey alteration trace pyrite a few quartz carbonate veins</p> <p>241.00-242.00 7878 typical green laminated & grey alteration trace pyrite a few quartz carbonate veins 19cm quartz carbonate vein</p> <p>242.00-242.90 7790 lam'd green + grey alteration with abundant qcarb (ankeritic) alteration as veins</p> <p>242.90-243.90 7791 pale green silica, sericitic alteration with diffuse grey carb veinlets</p> <p>massive sil/ser pale green alteration with abundant grey carbonate veinlets + a few quartz carbonate veins 243.90-244.90 7792 upper contact of qcarb zone, trace pyrite</p> <p>typical banded sericite, quartz carbonate + ankerite, green laminated with a few quartz carbonate veins 244.90-245.90</p>

From	To	Geological Log
		<p>7793 qcarb zone 23% fine grained seamy, and disseminated pyrite in bleached rock with abundant quartz carbonate veinlets, irregular</p> <p>90% quartz carbonate with abundant ankerite + minor sericite, abundant pyrite 245.90-246.90</p> <p>7794 q carb zone 23% fine grained seamy, and disseminated pyrite in bleached rock with abundant quartz carbonate veinlets, irregular greyish colour 246.90-247.90</p> <p>7795 q carb zone 23% fine grained seamy, and disseminated pyrite in bleached rock with abundant quartz carbonate veinlets, irregular minor porphyry (?)</p> <p>highly mineralized grey-locally creamy green yellow strong silicification, locally stringer sericitization, abundant quartz carbonate alteration 247.90-248.90</p> <p>7796 red + orange porphyritic 5% seamy pyrite 248.90-249.90</p> <p>7797 porphyritic unit 3% sulfide coarse grained disseminated + seamy</p> <p>247.8-250.2 sheared porphyry or coarse clastic unit ; red orange & black coarse grained, hem'd & magnetic unit locally strongly mineralized 249.90-250.90</p> <p>7798 orange unit dark trace ars 8% sulfide coarse grained disseminated + blebby 250.90-251.50</p> <p>7799 orange unit , dark trace arsenopyrite 8% sulfide</p> <p>dark orange & black alteration in coarse clastic (?) with qchlc veins, local minor porphyry (?) magnetic 251.50-252.80</p> <p>7800 pale orange (creamy), minor magnetite</p> <p>creamy orange, silicified, bulbous alteration (albitite?) minor sugary quartz carbonate veins, 1% magnetite fine disseminated 252.80-254.00</p> <p>7801 trace pyrite (blebby) in black/orange magnetic rock</p> <p>black & pale orange, locally weakly magnetic (porphyry?) 254.00-255.00</p> <p>7802 greeny yellow bulbous alteration with a few qcchl veinlets</p> <p>ochre, pale yellow green locally bulbous alteration with grey irregular quartz carbonate veinlets 1c marked with 6cm qank vein 255.00-255.90</p> <p>7803 contact between above and creamy grey quartz / sericite / quartz carbonate alteration 1% dirty blebby-seamy pyrite</p> <p>grey silicification + sericitization alteration with numerous grey quartz carbonate veinlets 256.20-256.70</p> <p>7879 typical banded sericite, quartz carbonate ankerite alteration 1% coarse grained pyrite locally</p> <p>typical banded sericite, qank, silicification alteration grey + sericitic green</p>
256.70	258.70	<p>GREYWACKES Typical, moderate, banded sericite, quartz carbonate ankeritic alteration 256.70-257.50</p> <p>7880 typical... 1% coarse grained blebby 257.50-258.70</p> <p>7881 typical... 1% coarse grained blebby</p>

From	To	Geological Log
258.70	264.20	<p>SILTSTONE/MUDSTONE, GREYWACKES Black with minor grey, fine laminated dominantly argillitic unit, graphitic & weakly pyritic; millimeter-centimeter bedded, otherwise centimeter bedded grey wacke (fine-medium grained)</p> <p>minor sericite alteration abundant graphite throughout (?) millimeter quartz carbonate alteration millimeter local silicification</p> <p>S0 @ 85 degrees to core axis, S1 // S2 prevalent (slightly N dipping flat) @ 60 degrees to core axis minor irregular quartz carbonate alteration</p> <p>up to 2% blebby, bright snowflake pyrite</p>
264.20	278.60	<p>GREYWACKES Typical green-pale green, banded, moderately altered centimeter-decimeter scale bedded, fine-coarse grained grey wacke . The alteration locally looks like typical lower zone alteration</p> <p>pervasive moderate sericitic alteration, locally pure sericite banding especially proximal to quartz carbonate veins abundant, irregular, diffuse grey carbonate veinlet local weak silicification banded ankerite alteration throughout</p> <p>S0 @ 70 degrees to core axis S1 // (?) S2 poorly developed locally RQD of 80 throughout</p> <p>trace pyrite locally throughout 265.80-266.80 7882 strong sericitic alteration throughout + pure sericite @ 20cm qank vein 274.80-275.60 7883 pure sericite @ several, irregular, quartz ankerite vein 275.60-276.60 7884 40cm, pale green, sericite zone with abundant, discontinuous, & irregular grey qank veinlets</p>
278.60	282.70	<p>GREYWACKES Grey- weakly green, grey , centimeter scale bedded, grey wacke with very minor, local, argillitic sections</p> <p>weak local sericitic alteration a few quartz carbonate veins (thin, irregular) minor , weak-moderate banded ankeritic alteration throughout S0/S1 80-90 degrees to core axis S2 60 degrees to core axis, slight, N dipping flat ... Poorly developed a few NS core axis // quartz carbonate veinlets trace bright blebby pyrite throughout</p>
282.70	290.40	<p>GREYWACKES, SILTSTONE/MUDSTONE Approx. Rocks, with small argillitic intervals throughout + patches of moderate alteration sericitic, graphitic & taupe (lower zone)</p> <p>taupe, sericitic silc & graphitic alteration is moderate but patchy minor, irregular, quartz carbonate alteration throughout minor strong silicification near end of interval weak ankeritic (ferrodolomitic) & calcite alteration S0, S1, S2 as above</p>

From	To	Geological Log
		<p>one 70 degrees strong dipping EW quartz carbonate vein 287.2 top side N movement along S2, several cm's 288.9 meter (structural cut)</p> <p>trace blebby pyrite in argillite, trace disseminated fine grained pyrite in sericitic alteration 287.00-288.00 7885 grey, sericitic, weakly silicified, coddled ankeritic alteration trace pyrite 288.50-289.50 7886 minor, irregular, quartz carbonate alteration, contorted, interesting structure</p>
290.40	293.50	<p>SILTSTONE/MUDSTONE, GREYWACKES Approx. Rocks with 50-60% argillitic sediments & patchy alteration</p> <p>patchy, variable alteration</p> <p>trace blebby pyrite throughout</p>
293.50	302.00	<p>GREYWACKES Variable, often lower zone like alteration + typical banded sericite quartz carbonate minor ankerite alteration minor argillite near end of interval</p> <p>patchy ankerite (50%) + calcite (50%) local hazy pale green sericite alteration with grey quartz carbonate veinlets lower zone minor irregular quartz carbonate alteration</p> <p>S0S1 @ 50-85 dcta minor S2 oriented quartz carbonate veinlets</p> <p>up to 3% blebby pyrite 293.50-295.00 7888 .5% blebby pyrite in banded sericitic quartz carbonate alteration 295.00-296.50 7889 1% blebby pyrite in lower zone type sericitic alteration with grey veinlets 296.50-298.00 7890 3% blebby pyrite in banded sericite quartz carbonate alteration</p>
302.00	313.20	<p>GREYWACKES Typical GREYWACKES alteration, overprint by strong silicification & brown (Fe) alteration associated with large diabase dike below</p> <p>strongly silicified throughout once sericitic bands now orange brown abundant thin quartz carbonates at various orientations</p> <p>1% fine grained & blebby pyrite associated with quartz carbonate vein at 310.1 meter 308.50-310.00 4045 similar to 7891 310.00-310.40 7891 15cm quartz carbonate / sericite zone with 1% blebby pyrite 310.40-311.30 4046 similar to 7891 311.30-312.20 4047 similar to 7891 312.20-313.20 7892 contact with dike a few quartz carbonate veins .5% pyrite locally</p>
313.20	355.00	<p>HIGHLY METAMORPHOSED ROCKS UNDIFFERENTIATED Diabase dike, dark green fine grained on edges (perhaps multi phase), non magnetic edges, coarse grained interior, weakly magnetic</p> <p>moderate ankeritic alteration throughout</p>

From	To	Geological Log
		<p>abundant irregular quartz carbonate alteration, very fine white, locally throughout</p> <p>minor top side N movement along S2 upper contact irregular, smearing along S2 numerous S2 fracs throughout + low less than (NNW) contact // (?) small frac zone 324-26, 348-352 a few NS fracs core axis //</p> <p>no mineralization</p>

*** END OF HOLE *** 355.00

HOLE NO: BKP-T-11

SECTION:

GRID:WAWAITAN

PROJECT CODE :BLACK PEARL MINERALS INC.
 TENEMENT :871715
 PROSPECT :WAWAITAN
 GRID :WAWAITAN
 MAP REFERENCE:
 LOCATION :THORNELOE TWP
 HOLE TYPE :DDH

*** DRILLING SUMMARY ***

DDH	0.00 392.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	19/9/96
Date finished:	23/9/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***

NOMINAL 536.80mN 301.60mE 281.00RL

Pre-collar depth: 392.0 Final depth: 392.00

Purpose of hole:

Hole status: COMPLETE

Comments: POLK GEOLOGICAL SERVICES

Material left in hole:

Base of complete oxidation:

Top of fresh rock:

Water first encountered:

Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	175.00	-45.00
50.00	182.00	-45.00
101.00	189.00	-43.50
150.00	196.50	-42.00
200.00	199.00	-40.00
250.00	195.50	-38.00
300.00	198.50	-37.00
350.00	202.50	-36.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00 12.00 OVERBURDEN
 12.00 25.70 GREYWACKES
 25.70 46.80 GREYWACKES
 46.80 53.50 GREYWACKES
 53.50 59.00 FAULT ZONE
 59.00 67.00 GREYWACKES
 67.00 77.60 GREYWACKES
 77.60 93.50 GREYWACKES
 93.50 99.10 GREYWACKES
 99.10 106.00 GREYWACKES
 106.00 121.50 GREYWACKES
 121.50 179.90 MAFIC VOLCANIC MASSIVE
 FLOWS
 179.90 198.20 GREYWACKES
 198.20 209.40 GREYWACKES,
 SILTSTONE/MUDSTONE
 209.40 212.20 SILTSTONE/MUDSTONE
 212.20 227.20 GREYWACKES
 227.20 228.40 FELSIC INTRUSIVES
 UNDIFFERENTIATED
 228.40 230.20 GREYWACKES
 230.20 238.70 GREYWACKES



42A06SW2005

2.18336

THORNELOE

080

Checked and signed: [Signature]

Date: FEB 18 96

HOLE NO: BKP-T-11

SECTION:

GRID:WAWAITAN

238.70	241.80	GREYWACKES
241.80	243.60	SILTSTONE/MUDSTONE, GREYWACKES
243.60	249.60	GREYWACKES, SILTSTONE/MUDSTONE
249.60	290.50	GREYWACKES, SILTSTONE/MUDSTONE
290.50	300.30	GREYWACKES
300.30	317.90	GREYWACKES
317.90	319.60	SILTSTONE/MUDSTONE, GREYWACKES
319.60	325.00	GREYWACKES
325.00	326.70	GREYWACKES
326.70	337.20	GREYWACKES
337.20	356.30	GREYWACKES
356.30	367.90	GREYWACKES
367.90	377.00	GREYWACKES
377.00	390.00	GREYWACKES
390.00	392.00	GREYWACKES
392.00		END OF HOLE

Checked and signed: _____ Date: _____

From	To	Geological Log
0.00	12.00	OVERBURDEN
12.00	25.70	GREYWACKES Dark green 20.00-21.00 7893 5% very fine grained pyrite over 5 centimeter
25.70	46.80	GREYWACKES Approx. Equal to unit with weak pervasive 28.70-29.80 7894 variably altered 32.00-33.00 7895 green rock with 1-2% very fine grained disseminated pyrite locally
46.80	53.50	GREYWACKES Moderately altered grwy with weakly discernable bedding abundant bleaching with powdery white / grey alteration throughout 50.00-51.50 7896 1% very fine grained disseminated pyrite in mixed alteration
53.50	59.00	FAULT ZONE Variably altered (weak-strong) with abundant shearing throughout ... Mylonization abundant local chlorite local chloritic breccia with gouge 57.50-59.00 7897 check sample
59.00	67.00	GREYWACKES Moderately altered orange / red sediments with moderate pervasive silicification throughout 60.00-61.00 7898 orange alteration with pervasive moderate silicification trace pyrite check sample 62. 50-63.50 7899 orange alteration with pervasive moderate silicification trace pyrite check sample more silicification
67.00	77.60	GREYWACKES Variably green banded weakly-moderately locally altered (sericite) 70.30-71.00 7900 10 centimeter 71.70-72.70 7901 variable alteration with 1% very fine grained pyrite locally 72.70-73.70 7902 7 centimeter + 12 centimeter quartz carbonate veins with trace pyrite + sericite on margins
77.60	93.50	GREYWACKES Locally sheared variably altered 77.60-81.70 Green sediments with pin-point alteration (quartz carbonate?) 81.70-85.20 Dominant green 85.20-85.70 Coarse clastic unit (porphyritic?) red 85.70-90.50 Mixed 90.50-92.00 Green (dark) with pin-point quartz carbonate alteration 92.00-93.00 Mixed alteration + 2 quartz carbonate veins 1 with pure sericite 93.00-93.10 Pale green 93.10-93.50 Reddish coarse clastic

From	To	Geological Log
93.50	99.10	GREYWACKES Typical moderate
99.10	106.00	GREYWACKES Orange/red & green alteration associated with a few quartz carbonate veins & 2 101.00-102.00 7904 35 centimeter vein 102.00-103.00 7905 2 10 centimeter (or(1)) quartz carbonate vein with sericite alteration 103.00-104.00 7906 banded 104.00-105.00 7907 5 centimeter foliation // quartz carbonate vein in banded alteration 105.00-106.00 7908 a few quartz carbonate veins in banded alteration
106.00	121.50	GREYWACKES As grey wacke above with thin grey wacke unit with quartz carbonate veins 111.5-112.3 S2 more prominent 111.50-112.30 7909 25 centimeter coddled ankerite quartz carbonate vein x 2 with millimeter chlorite 120.50-121.50 7910 check sample
121.50	179.90	MAFIC VOLCANIC MASSIVE FLOWS Dark green 166.50-168.00 7911 semi massive pyrite + magnetite associated with quartz carbonate alteration 172.50-173.00 7912 20 centimeter grey silicified zone
179.90	198.20	GREYWACKES Upper zone- although strongly altered 179.90-180.00 Bulbons chlorite / quartz carbonate alteration 180.00-181.60 Banded 181.60-183.50 Approx. Equal with minor coarse clastic 183.50-185.00 7915 pale green 185.50-187.30 Grey / taupe alteration 187.30-187.90 Banded green sediments 187.90-188.00 Bulbons chlorite 188.00-189.80 Abundant bulbons alteration in volc looking rock 189.80-190.30 Greyish fan coarse clastic 7917 tan greyish porphyritic unit 190.30-192.70 Volc looking banded rock 192.70-195.60 Banded green / taupe / quartz carbonate alteration sediments 7918 sediments with millimeter quartz carbonate + taupe alteration 7919 sericite banded sediments

From	To	Geological Log
		195.60-196.60 Arsenopyrite zone 196.60-198.20 Moderately - strongly altered
198.20	209.40	GREYWACKES, SILTSTONE/MUDSTONE 201.40-202.00 7923 10% pyrite as described above 202.00-203.50 4073 taupe grey ; with sericite alteration with ankerite alteration ; few coddled quartz carbonate vein ; trace fine grained pyrite 203.50-205.00 4074 taupe grey - 2 small quartz carbonate vein trace fracture pyrite - coarse grained subhedral ; trace fine grained pyrite 205.00-206.00 7924 trace coarse grained bright blebby pyrite in stringer sericite alteration 8 centimeter quartz carbonate vein 206.00-207.00 7925 trace coarse grained bright blebby pyrite in stringer sericite alteration 207.00-208.50 4075 banded with quartz carbonate vein 10% - sericite alteration with ankerite alteration trace blebby pyrite 208.50-209.40 4076 banded with quartz carbonate vein 10% - sericite alteration with ankerite alteration trace blebby pyrite
209.40	212.20	SILTSTONE/MUDSTONE Dark grey - black fine grained sediment with locally abundant graphitic/argillitic sediments ... Not high graphite component . Locally laminated weak graphitic alteration minor quartz carbonate alteration weak 209.40-210.90 7926 trace pyrite in graphitic argillite 210.90-212.20 7927 trace pyrite in graphitic argillite
212.20	227.20	GREYWACKES Grey -greyish green 212.20-213.70 7928 check sample trace pyrite 224.70-226.20 7929 trace pyrite associated with abundant quartz carbonate alteration 226.20-227.20 7930 check sample end of interval.
227.20	228.40	FELSIC INTRUSIVES UNDIFFERENTIATED Pale green grey coarse clastic unit with 30-40% quartz eyes. The unit is probably a porphyritic one but occasionally displays crude bedding features weakly sericite throughout with occasional sericite band very minor quartz carbonate alteration S1/0 ? developed at 75 degrees to core axis no noticeable S2 developed 227.20-228.40 7931 coarse clastic unit (porphyry ?) with trace pyrite

From	To	Geological Log
228.40	230.20	<p>GREYWACKES Basically typical sericite banded sediments with local lower zone looking pervasive sericite alteration with abundant grey carbonate veinlets irregular throughout</p> <p>moderate pervasive sericite alteration throughout 10% irregular 228.40-229.40 7932 lower zone type sericite / grey quartz carbonate vein alteration trace pyrite 229.40-230.20 7933 typical grey wacke alteration</p>
230.20	238.70	<p>GREYWACKES Locally moderately but predominantly weakly altered sediments with minor argillitic intervals</p> <p>minor sericite alteration throughout 230.20-231.70 7934 moderate silicification & sericitization associated with quartz carbonate vein</p>
238.70	241.80	<p>GREYWACKES Highly sericite 238.70-240.20 7935 abundant sericite + grey quartz carbonate alteration 240.20-241.20 7936 abundant sericite + abundant feld blebs 241.20-241.80 7937 30 centimeter very sericite alteration with 1% fine grained dirty blebby pyrite S2 foliated</p>
241.80	243.60	<p>SILTSTONE/MUDSTONE, GREYWACKES 241.80-242.80 7938 242.80-243.60 7939</p>
243.60	249.60	<p>GREYWACKES, SILTSTONE/MUDSTONE 243.60-244.70 7940 sericite / quartz carbonate altn in locally sheared grey wacke 244.70-245.70 7941 sericite / quartz carbonate alteration in locally sheared grey wacke 245.70-246.50 7942 sericite / quartz carbonate alteration in locally sheared grey wacke 246.50-247.50 7943 sericite / quartz carbonate alteration in locally sheared grey wacke 247.50-248.00 7944 2% dirty blebby pyrite in sericite grey wacke 248.00-249.00 7945 sericite / quartz carbonate alteration in grey wacke 249.00-249.60 7946 1% coarse blebby pyrite in argillite rock</p>
249.60	290.50	<p>GREYWACKES, SILTSTONE/MUDSTONE 249.60-251.10 7947 bracket sample approx. Equal to grey wacke above 262.20-263.70 4077 check sample uphole 7948 - similar less sericite alteration & quartz carbonate vein 263.70-265.20 7948 moderate alteration 265.20-266.70 4078 check sample down hole 7948 - similar to 7948 270.50-271.90 4079 check sample down hole 7949 similar to 7949 271.90-273.50 4080 7949 similar</p>

From	To	Geological Log
		<p>273.50-275.00 7949 abundant irregular quartz carbonate & sericite alteration (moderate)</p> <p>275.00-276.00 4081 check sample 7949 down hole less sericite</p> <p>276.00-277.00 4082 check sample uphole 7950 similar to 4081 less sericite</p> <p>277.00-278.30 7950 moderate sericite</p> <p>278.30-279.60 4083 check sample down hole 7950 similar to 7950 including sericite & quartz carbonate veir</p> <p>284.20-285.10 7951 5 centimeter quartz ankerite vein</p> <p>285.10-286.60 4084 check sample similar to 7949 less sericite</p> <p>286.60-288.20 4085 similar to above less sericite & quartz carbonate vein</p>
290.50	300.30	<p>GREYWACKES Medium grey</p> <p>292.10-293.10 7952 silicified GREYWACKES with 15 centimeter q ankerite vein</p> <p>293.10-294.10 7953 check sample with chloritic clots</p> <p>299.30-300.30 7954 trace pyrite associated with quartz carbonate alteration</p>
300.30	317.90	<p>GREYWACKES Moderately altered (variably) sediments</p> <p>weak - locally moderate sericite alteration locally banded 10-20% irregular quartz carbonate alteration often with ankerite (coddled) locally strong silicification (hazy / fractured) pale sericite zones have associated pyrite (dirty blebby) weak pervasive ferrodo;omitic alteration</p> <p>302.00-303.50 4086 similar to 7955 - few quartz carbonate vein</p> <p>303.50-304.50 7955 15 centimeter sericite band with 1% d blebby pyrite (check sample)</p> <p>304.50-305.50 4087 similar to 7955</p> <p>305.50-307.00 7956 20 centimeter sericite band with 1% d blebby pyrite + local shearing + quartz carbonate alteration</p> <p>307.00-308.50 7957 25 centimeter silicified sericite zone with trace dirty blebby pyrite + trace very fine grained disseminated pyrite</p> <p>308.50-309.60 4088 simialr to 7957</p> <p>309.60-310.70 4089 similar to 7957</p> <p>310.70-311.90 7958 variably silicified zone with abundant</p> <p>311.90-312.90 4090 simialr to 7958</p> <p>312.90-313.80 4091 simialr to 7958</p> <p>315.50-316.50 7959 strongly silicified zone + silicification & ankerite alteration (check)</p>

From	To	Geological Log
317.90	319.60	SILTSTONE/MUDSTONE, GREYWACKES
319.60	325.00	GREYWACKES Like all grey wacke before
325.00	326.70	GREYWACKES Well laminated 325.00-326.70 7960 as above
326.70	337.20	GREYWACKES Variable moderate alteration 326.70-327.70 7961 trace pyrite 327.70-329.20 7962 trace pyrite 331.00-332.00 7963 1% very coarse dirty blebby pyrite locally 332.00-333.00 7964 2% dirty blebby pyrite locally 334.00-335.20 7965 1% dirty blebby pyrite
337.20	356.30	GREYWACKES Typical weakly altered fine medium grained sediments tops (up hole) local moderate sericite alteration associated with quartz carbonate alteration 340.20-341.70 7966 trace dirty blebby pyrite 350.30-351.30 7967 20 centimeter quartz ankerite vein with associated sericite alteration + 1% dirty blebby pyrite
356.30	367.90	GREYWACKES Moderately altered 356.30-357.30 7968 sericite / quartz carbonate / feldspar clotted zone 362.50-364.00 7969 abundant quartz carbonate 366.90-367.90 7970 bracket sample around zone below trace coarse blebby
367.90	377.00	GREYWACKES Strongly altered sediments (?) with a few attendant quartz ankerite veins strong sericite alteration associated closely with quartz carbonate veins strong silicification below quartz carbonate veins 375-377 abundant local quartz carbonate alteration including a few large veins weak ankeritic alteration at best S0/1 75 degrees to core axis S2 locally developed & locally warped fracture zone associated with lowed quartz carbonate vein 375m trace ars + 1-2% pyrite associated with quartz carbonate veins 367.90-368.90 7971 2 3 centimeter quartz carbonate veins + abundant quartz carbonate alteration trace arsenopyrite + 2% pyrite 368.90-369.90 7972 trace arsenopyrite + 1% pyrite associated with small quartz carbonate vein + numerous quartz carbonate alteration bands 369.90-370.90 7973 trace pyrite in quartz carbonate alteration 370.90-371.90

From	To	Geological Log
		7974 trace pyrite in minor quartz carbonate alteration 371.90-372.80 7975 1% blebby pyrite below 15 centimeter quartz ankerite vein 372.80-373.70 7976 2% dirty blebby pyrite. 373.70-374.70 7977 30 centimeter + 2 centimeter quartz carbonate vein in brecciated strongly sericite zone with 2% pyrite trace arsenopyrite. 374.70-375.80 7978 silicified zone 375.80-376.80 7979 check sample
377.00	390.00	GREYWACKES Variably moderately altered sediments 379.60-381.10 4092 check sample 7980 - few quartz carbonate vein some sericite 381.10-382.10 7980 banded sericite 382.10-383.30 4093 check sample 7980 30% quartz carbonate vein 383.30-384.20 4094 check sample similar to 4993 384.20-385.20 7981 fractured quartz carbonate abundant 385.20-386.70 4095 similar 7981 more quartz carbonate vein
390.00	392.00	GREYWACKES Typical weakly altered sediments 391.00-392.00 7982 check sample

*** END OF HOLE *** 392.00

HOLE NO: BKP-T-17	SECTION:	GRID:WAWAITIN
-------------------	----------	---------------

PROJECT CODE : BLACK PEARL MINERALS INC.
 TENEMENT : HS984
 PROSPECT : WAWAITIN
 GRID : WAWAITIN
 MAP REFERENCE:
 LOCATION : THORNELOE TWP
 HOLE TYPE : DDH

*** DRILLING SUMMARY ***

DDH	0.00 242.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	3/10/96
Date finished:	5/10/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***

NOMINAL	600.00mN	500.00mE	310.00RL
---------	----------	----------	----------

Pre-collar depth: 242 Final depth: 242.00
 Purpose of hole:
 Hole status: COMPLETE
 Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	176.00	-45.00
50.00	184.50	-44.50
101.00	189.50	-44.00
140.00	189.50	-43.00
200.00	189.50	-41.00
242.00	192.50	-40.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	18.00	OVERBURDEN
18.00	54.70	GREYWACKES
54.70	80.20	GREYWACKES
80.20	103.40	GREYWACKES
103.40	105.30	GREYWACKES
105.30	117.70	GREYWACKES
117.70	134.60	GREYWACKES
134.60	142.50	GREYWACKES
142.50	156.80	GREYWACKES
156.80	190.40	MAFIC VOLCANICS UNDIFFERENTIATED
190.40	205.10	MAFIC VOLCANICS UNDIFFERENTIATED
205.10	213.00	GREYWACKES
213.00	227.20	GREYWACKES
227.20	235.70	GREYWACKES
235.70	237.70	GREYWACKES, SILTSTONE/MUDSTONE
237.70	242.00	GREYWACKES
242.00		END OF HOLE



42A06SW2005

2.18336

THORNELOE

090

Checked and signed: <u> <i>BK Polk</i> </u>	Date: <u> FEB 18 98 </u>
---	--------------------------------

From	To	Geological Log
0.00	18.00	OVERBURDEN Muck + sandy till
18.00	54.70	GREYWACKES - Weakly "kapika" altered, meter-coarse grained greywackes, centimeter-decimeter bedded with tops up hole. The unit is multicoloured greens and pale oranges with orange/reddish intervals showing mild magnetics. The unit looks vaguely volcanic locally, perhaps minor flows. -Weak alteration throughout, variable chloritic, ankeritic, hematitic, sericitic a few quartz carbonate veins (thin, foliation //) locally S0 well developed @ 70-75 degrees to core axis S1 // (?) S2 locally, weakly developed cren quartz carbonate veins, S0 odd low less than foliation @, 44.6meters, NNE & vertical (?) fractures throughout, some oxidized RQD of 30 core axis // QCV (1cm) approx. To 44.5meters up to 3% very fine grained disseminated pyrite, euhedral associated with orange/red alteration 38.50-40.00 8050 trace-1% very fine grained pyrite in variable reddish green oxidized fracture zone grey wacke 43.80-45.30 8051 3% very fine grained pyrite in pale alteration, odd foliation 1cm CA// quartz carbonate vein 45.30-46.80 8052 1% local very fine grained pyrite in reddish coarse grained unit with a few quartz carbonate veins, weakly magnetic
54.70	80.20	GREYWACKES Approx. Lithological unit with slightly more alteration (loss of visible primary features in general) of the same types fine grained sediments - chloritic, coarser grained - sericitic colours of alteration the same, locally slightly more intense sericitic alteration tops up 60.20-61.50 8053 check sample orange alteration (massive) with pale grey veinlets (irregular) 69.80-71.00 8054 check sample 1% pyrite in sericitic alteration 79.20-80.20 8055 25cm banded sericitic unit with 1% fine - medium grained euhedral pyrite (silicified)
80.20	103.40	GREYWACKES Probably approx. Lithological unit with intense alteration of various types. The general colour is red brown, but greens and oranges are present. Only very occasional, vestigages of what might be bedding are visible locally, pyrite near end of interval very coarse grained, porphyritic looking unit (?) hem'd 96.6m - 97.0m, centre of hematitic alteration strong pervasive hematite / sericite / silicification alteration throughout abundant irregular quartz carbonate veins & veinlets irregular & foliation // throughout a few vuggy quartz carbonate vein carbon alteration (black/sooty) lines numerous vugs in intense brown alteration local strong silicification / sericitization proximal to quartz carbonate veins strong oxn approx. Some quartz carbonate vein, very intense near end of interval locally weakly magnetic, magnetite associated with hematite alteration in fine grained bands, disseminated S0 (?) @ 80 degrees to core axis S2 locally developed as centimeter scale crenulations of S0 (flat) 20 degrees to core axis a few oxidized fracture zone. Numerous S0 (?) // fractures throughout ... RQD of 40-50 a few vuggy quartz carbonate veins & fracture zones

From	To	Geological Log
		<p>trace-2% very fine grained disseminated euhedral pyrite throughout 4% fine pyrite associated with sericitic / silicified zones coarse, euhedral pyrite associated with black, sooty vug lining</p> <p>hematization appears to centre approx. To the coarse grained unit (96.6m - 97.0m) or porphyry but intense oxidization is located around a fine grained carbonate unit from 102.3-103.3</p> <p>83.00-84.50 8056 two sericitic, units with 1% very fine pyrite</p> <p>84.50-86.00 8057 vuggy pale grey sericitic / silicified unit with abundant irregular quartz carbonate veinlets + 4% very fine pyrite locally</p> <p>86.00-87.50 8058 intense brown/orange alteration with sooty vugs 1% coarse grained euhedral pyrite</p> <p>87.50-89.00 8059 orange + pale grey alteration with abundant irregular quartz carbonate alteration</p> <p>89.00-90.50 8060 grey + brown + orange alteration</p> <p>90.50-92.00 8061 two oxidized fractures + minor , vuggy black sooty alteration</p> <p>96.50-97.00 8062 coarse grained strongly hem'd porphyry (thin section)</p> <p>100.60-101.00 8063 1-2 centimeter irregular low less than quartz carbonate vein, hematite.</p> <p>102.30-103.30 8064 fine grained highly oxidized, carbonate unit</p>
103.40	105.30	<p>GREYWACKES Centimeter bedded GREYWACKES with waning hematitic alteration & increasing sericitic alteration, the beds are distinct, but very hazy, grading into very strong sericitic alteration...Possibly a lithological change to laminated sediments</p> <p>ankeritic alteration tops up pervasive moderate more foliation // quartz carbonate alteration less purple/ red hematitic, oxidization alteration</p>
105.30	117.70	<p>GREYWACKES Entirely sericitic altered, fine grained millimeter-centimeter laminated sediments bedding is evident but sericitic alteration is pervasive. Tops downhole (dubious) locally the unit resembles porphyritic rock</p> <p>112.5-117.7 strong chloritic alteration with numerous quartz carbonate vein pervasive strong pale green sericitic alteration, locally strength banded locally numerous, generally foliation // quartz carbonate veinlet & stringer very minor orange hematite approx quartz carbonate vein a few larger quartz carbonate veins minor chloritic alteration approx. Finer laminated sediments pervasive weak ankeritic alteration S0/1 80-85 degrees to core axis S2 locally well developed, flat 50 degrees to core axis perpendicular to S1, crenulations S0 minor broad scale NS crenulations numerous S2 fractures throughout trace -1% very fine grained pyrite approx. Chloritic / sericitic laminated intervals trace dirty, blebby pyrite large quartz carbonate vein has sericitic / pyrite margins</p> <p>105.30-106.30 8065 2cm & 4cm quartz carbonate veins with associated hematite alteration</p> <p>106.30-107.30 8066 minor quartz carbonate alteration, trace pyrite</p>

From	To	Geological Log
		<p>107.30-108.80 8067 three laminated zones with up to 1% fine - medium grained pyrite + trace dirty blebby pyrite</p> <p>108.80-109.60 8068 24cm foliation // quartz carbonate vein with trace tourmaline, sericitic / pyritic margin , minor coddled ankerite</p> <p>109.60-111.10 8069 sericitic / quartz carbonate alteration alteration</p> <p>111.10-112.50 8070 sericitic / quartz carbonate alteration alteration slightly up hole chloritic alteration</p> <p>112.50-113.50 8071 strong chloritic / sericitic alteration associated with a few 1-4cm coddled ankerite quartz carbonate veins</p> <p>113.50-114.50 8072 strong chloritic / sericitic alteration associated with a few 1-4cm coddled ankerite quartz carbonate veins</p> <p>114.50-116.00 8073 minor quartz carbonate alteration in weakly silicified, moderately sericitized grey wacke.</p> <p>116.00-117.00 8074 strongly silicified / sericitic zone with irregular quartz carbonate alteration</p>
117.70	134.60	<p>GREYWACKES Green-green grey, locally reddish, centimeter bedded sediments with weak alteration generally, moderate alteration locally. Generally strong S2 crenulations</p> <p>weak, pervasive, chloritic alteration intimate with diffuse banded sericitic alteration local moderate, hematite / quartz carbonate alteration a few, irregular, quartz carbonate veinlets locally throughout</p> <p>S0 @ 70 degrees to core axis S2 well developed as cren of S0 , centimeter scale - decimeter scale, with movement a few larger quartz carbonate veins a few NS fractures trace pyrite, especially associated with moderate hematite alteration</p> <p>126.00-127.50 8075 trace coarse grained / disseminated pyrite in local hematite alteration, numerous quartz carbonate veins 1-8cm</p> <p>131.00-131.60 8076 trace seamy coarse grained pyrite associated with strong sericitic alteration approx. 12cm irregular quartz carbonate vein</p>
134.60	142.50	<p>GREYWACKES Moderately sericitic, hem'c, locally silc sediments, centimeter bedded. Strongly silicified 134.6m-135.6m locally moderate hematite alteration, orange-purple reddish locally abundant, diffuse, irregular quartz carbonate alteration chloritic alteration near end of interval a few larger quartz carbonate veins S0 @ 70 degrees to core axis locally developed S2 crenulations of S large quartz carbonate vein @ 138.6m - 138.9</p> <p>silicified unit has 1% very fine grained disseminated pyrite trace pyrite throughout</p> <p>134.60-135.60 8077 1% very fine grained disseminated pyrite in coarse grained silc sericitic grey wacke</p> <p>137.50-139.00 8078 trace pyrite in mix hematite / sericitic alteration with 25cm quartz carbonate vein, coddled ankerite, chlorite, sericite</p>

From	To	Geological Log
		140.20-140.50 8079 10cm quartz carbonate vein in weak hematite alteration
142.50	156.80	<p>GREYWACKES Typically, sericitic banded, quartz carbonate altered sediments with bedding generally obscured by alteration moderate sericitic, quartz carbonate alteration throughout, locally banded very weak, local hematite alteration local silicification, trace fuchsite near end of interval S0 @ 70-75 degrees to core axis, locally as low as 45 S2 locally weakly developed, decimeter scale crenulations numerous S0 // fractures</p> <p>145.30-146.30 8080 trace very fine grained disseminated pyrite in moderate sericite, weak hematite alteration (S0 45 degrees to core axis)</p> <p>146.30-147.50 8081 banded sericite, quartz carbonate alteration with minor thin foliation // veinlets</p> <p>147.50-149.00 8082 a few quartz carbonate veins foliation // thin</p> <p>149.00-150.30 8083 trace blebby pyrite in moderate sericite, quartz carbonate banding</p> <p>150.30-151.80 8084 trace blebby pyrite in moderate sericite, quartz carbonate strong S2</p> <p>151.80-153.30 8085 same as above</p> <p>153.30-154.80 8086 same as above</p> <p>154.80-155.80 8087 same as above</p> <p>155.80-156.80 8088 silicified poorly developed contact with below</p>
156.80	190.40	<p>MAFIC VOLCANICS UNDIFFERENTIATED Dark green medium - coarse grained mafic volcs with abundant S0 // quartz carbonate alteration</p> <p>minor skeletal pale brown mafic locally variable weak - locally strong primary chloritic alteration very minor banded sericitic alteration locally strong pervasive ankeritic alteration near upper contact, weakens over 20m local pin-point carbonate alteration 10-15% S0 // quartz carbonate veinlets & stringers , calcite dominates with depth alteration is strong to weak. S0 (?) S1 well developed @ 65 degrees to core axis S2 locally developed as crenulations , of quartz carbonate alteration local shearing weak S0 // trace coarse grained pyrite locally, a few larger quartz carbonate veins 1 with tourmaline</p> <p>156.80-157.80 8089 bracket sample @ proximal to above</p> <p>165.90-166.80 8090 10cm sericite / quartz carbonate zone + 15% S0 // quartz carbonate</p> <p>182.80-183.60 8091 .5% pyrite approx. 10cm quartz carbonate vein with minor tourmaline + numerous thin quartz carbonate veinlets weak shear</p>
190.40	205.10	<p>MAFIC VOLCANICS UNDIFFERENTIATED Grey-dark green, locally sheared mafic volcanics with variable & varietal alteration from weak to moderate. The unit displays possible amygdules from 190.4-192.8 meters, the unit is also strongly carbonate altered throughout this interval Shearing is locally prevalent // to S0(1)</p>

From	To	Geological Log
		<p>alteration is similar to unit above but more intense. Upper 2 meters is grey & ankerite rich with possible calcite filled amygdules quartz carbonate alteration is abundant throughout especially in sheared zones millimeter fuchsitic alteration @ 197.8meters local strong chloritic alteration</p> <p>very well developed S0 @ 70dtca quartz carbonate alteration // S0 S2 very weak & local</p> <p>trace coarse grained pyrite associated with quartz carbonate alteration trace blebby/seamy pyrite associated with chloritic alteration 192.70-194.20 8092 trace pyrite associated quartz carbonate alteration seamy bright in sheared MAFIC VOLCANICS UNDIFFERENTIATED 197.40-198.90 8093 fuchsite, quartz carbonate & chloritic alteration in sheared mafic volcanics 202.50-203.50 8094 a few quartz carbonate veins (diffuse, sugary) check sample</p>
205.10	213.00	<p>GREYWACKES Pale green, chloritic, sericitic centimeter bedded sediments (?)</p> <p>generally pervasive chloritic alteration throughout (volcanic component?) abundant quartz carbonate alteration clots & irregular veinlets minor pure sericite bands, sericite approx to some quartz carbonate veins minor orange hematite alteration as discrete bands (weakly magnetic)</p> <p>S0 @ 75 degrees to core axis minor S2 crenulations. A few chloritic fractures // core axis trace coarse grained pyrite locally, minor tourmaline in sericitic zone 208.60-210.10 8095 10cm ankerite vein, 1% seamy pyrite + clotted quartz carbonate alteration 210.80-211.10 8096 1% seamy pyrite approx. 10cm sericitic zone (pure) with minor tourmaline 212.00-213.00 8097 5cm quartz carbonate tourmaline vein sub // fln in bracket sample sample above upper zone</p>
213.00	227.20	<p>GREYWACKES UPPER ZONE</p> <p>typical, unhematized upper zone. The unit consists of severely sheared porphyritic (coarse clastic?) material , either in four thin units with indiscrete margins or four zones of more intense shearing, the latter theory is favoured. Colour ranges from pale grey-green to ochre to dark grey. The unit is locally magnetic</p> <p>alteration consists of weak, pervasive, ankeritic or ferrodolomitic alteration , strong in foliation //, thin stripes sericitic alteration is pervasive & locally strong, especially proximal to quartz carbonate veins weak, pale orange hematite or perhaps potassic alteration associated with porphyritic units silicification is strong in coarse clastic (unshaded porphyry?) near end of interval</p> <p>well developed S0/1 @ 60-65 degrees to core axis shearing is apparantly // to S0/1 a few NS, core axis // fractures, locally displaced along S0/1 a rare few S2 fractures, weakly displace S0/1</p>

From	To	Geological Log
		<p>mineralization of any potential is restricted to the quartz vein zone 224.6m-226.6m, one quartz carbonate vein has abundant arsenopyrite & semi massive pyrite along its upper contact. Otherwise, mineralization consists of trace coarse blebby locally blebby & dirty pyrite</p> <p>213.00-214.00 8098 trace pyrite quartz carbonate veins (thin, irregular) porphyry(sheared) grey/buff, mottled</p> <p>216.60-218.10 8099 60cm sericitic zone with chloritic fractures + porph grey banded sediments quartz carbonate, ankerite pale buff orange, silicified, chloritic fractured unit buff/grey banded quartz carbonate</p> <p>218.10-219.60 8100 colourful porphyry zone trace mixed light green/dark grey</p> <p>219.60-221.10 8101 colourful porphyry zone</p> <p>221.10-221.90 8102 grey banded alteration 2 or 3 shears or porphyries multi coloured grey-orange (pale), light green mottled grey quartz carbonate banded</p> <p>221.90-222.90 8103 porphyry zone</p> <p>222.90-223.90 8104 pale porphyry zone magnetite abundant 2 porphyritic zones as above</p> <p>223.90-224.60 8105 d blebby pyrite in sericitic grey wacke with minor grey carbonate veinlets typical banded sericite alteration with abundant quartz carbonate alteration</p> <p>224.60-225.60 8106 3% semi massive pyrite + 1% meter-coarse grained arsenopyrite locd approx. Upper contact of 30cm coddled ankerite quartz carbonate vein + 20cm same 1% d blebby pyrite below</p> <p>225.60-226.60 8107 minor 5-10cm coddled ankerite quartz carbonate vein with sericitic margins QUARTZ VEIN ZONE, highly mineralized quartz vein zone with pure sericite margins approx. Several quartz carbonate veins (coddled ankerite)</p> <p>226.60-227.20 8108 grey silicified coarse grained unit...Unaltered/sheared porphyry</p> <p>coarse clastic unit or porphyry, pristine; silicified only coarse grained unit</p>
227.20	235.70	<p>GREYWACKES Typical sericite banded with bedding relationships obscured by alteration</p> <p>locally pure banded sericitic alteration abundant, S0 // quartz carbonate alteration minor ankerite local chloritic alteration a few irregular grey quartz carbonate veinlets S0 85dtca S1 10 degrees discrepancy (95 degrees to core axis) S2 locally developed as crenulations, locally 1/2meter scale crenulations. Trace pyrite locally</p> <p>227.20-228.70 8109 banded sericite alteration with abundant irregular, quartz carbonate alteration (some grey) + 2 ankeritic quartz carbonate veins</p>

From	To	Geological Log
		228.70-230.20 8110 banded sericite alteration with abundant S2 crenulated 230.20-231.70 8111 same as above 231.70-233.20 8112 banded sericite alteration with abundant S2 crenulated stronger pervasive sericite 233.20-234.70 8113 banded sericite alteration with abundant S2 crenulated 234.70-235.70 8114 same as above
235.70	237.70	GREYWACKES, SILTSTONE/MUDSTONE Grey, laminated grey wacke with intercalated argillite throughout strong quartz carbonate alteration throughout very weak ankeritic alteration pervasive, but a few ankeritic quartz carbonate veins S0 70 degrees to core axis S1 // S2 centimeter-decimeter scale crens trace pyrite 235.70-236.70 8115 grey quartz carbonate in grey wacke & argillite 236.70-237.70 8116 same as above
237.70	242.00	GREYWACKES Weakly altered, banded, centimeter bedded sediments weak pervasive sericitic alteration (strong for 1meter) a few quartz carbonate vein very weak pervasive ankeritic alteration S0 well developed @ 70 degrees to core axis S1 // S2 as a few fractures (quartz carbonate filled) 3% dirty blebby pyrite associated with stronger pervasive sericitic alteration (238.5-239.1) 237.70-238.40 8117 trace pyrite, quartz carbonate alteration 238.40-239.40 8118 60cm strong sericite zone 3% dirty blebby folded pyrite 239.40-241.00 8119 trace pyrite, quartz carbonate alteration 241.00-242.00 8120 same as above EOH

*** END OF HOLE *** 242.00

HOLE NO: BKP-T-18	SECTION:	GRID:WAWAITIN
-------------------	----------	---------------

PROJECT CODE :BLACK PEARL MINERALS
 TENEMENT :HS987
 PROSPECT :WAWAITIN
 GRID :WAWAITIN
 MAP REFERENCE:
 LOCATION :THORNELOE TWP
 HOLE TYPE :DDH

*** DRILLING SUMMARY ***

DDH	0.00 308.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	8/10/96
Date finished:	10/10/96
Logged by:	PMT
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***

NOMINAL	0.00mN	0.00mE	305.00RL
---------	--------	--------	----------

Pre-collar depth: 308.0 Final depth: 308.00
 Purpose of hole:
 Hole status: COMPLETE
 Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	175.00	-45.00
50.00	178.50	-45.00
101.00	183.50	-44.00
150.00	185.50	-42.50
200.00	185.50	-41.00
260.00	184.50	-39.50
302.00	191.50	-39.00
308.00	191.50	-39.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	19.00	OVERBURDEN
19.00	25.40	GREYWACKES
25.40	35.50	GREYWACKES
35.50	38.20	GREYWACKES
38.20	119.00	GREYWACKES
119.00	132.90	GREYWACKES
132.90	137.20	GREYWACKES
137.20	194.90	GREYWACKES
194.90	208.40	GREYWACKES
208.40	229.40	GREYWACKES
229.40	308.00	GREYWACKES
308.00		END OF HOLE

2.18336



42A06SW2005 2.18336 THORNELOE 100

Checked and signed: <u>BAW</u>	Date: <u>FEB 18 98</u>
--------------------------------	------------------------

From	To	Geological Log
0.00	19.00	OVERBURDEN
19.00	25.40	<p>GREYWACKES</p> <p>Rock is olive green, weathered medium grained - coarse grained units, banded centimeter - decimeter</p> <p>alteration-schl alteration pervasive meter ankerite alteration- medium grained unit, with ankerite alteration coarse grained unit, with silicification coarse grained unit with sericite locally alteration patchy ankerite / calcite</p> <p>stringer- banding 85-80 degrees to core axis S0, S1 S2 - 20 degrees to core axis / S1 50-60 degrees to core axis @ 24.9 quartz carbonate vein RQD 0-50 appears to follow S1 & S2 intersection 40dtca/75dtca S0 85 degrees to core axis minor trace very fine grained pyrite in more numerous in coarse grained units & along fracture or very ridges</p>
25.40	35.50	<p>GREYWACKES</p> <p>Grey medium grained - coarse grained greywackes graded bedding - tops uphole decimeter-meter bedded - uniform grey with fairly blacker grey banding unit has approx. 1-5% white (ferrocalcite) veinlets contorted along S1 & S2 some vuggy areas (weathering) with oxidized, chlorite disseminated</p> <p>alteration- meter ankerite alteration ; weak sericite alteration, locally moderate ; locally with silicification ; 1-5% fewer calcite veinlets</p> <p>strong-S0 - 80 degrees to core axis S0 perpendicular S2 hor cleavage - S2-crenulated veinlets - fractures // to S0/1 RQD - 90 minor - trace-1% fine-medium grained disseminated pyrite locally 2% pyrite, coarse grained fractured, concentrated along veinlets euhedral- subhedral 26.90-28.10 21845 check sample coarse-medium grained grey , meter pervasive ankerite alteration numerous veinlets</p>
35.50	38.20	<p>GREYWACKES</p> <p>Yellow green coarse grained unit with .5 meter section of weathered , very fine vein ferro calcite, contorted; locally oxidized & vuggy (weathering); vein // to banding occasionally S2 is crenulated</p> <p>alteration with silicification in coarser unit pervasive weathering with pervasive ferro calcite alteration very few veinlets fecc disseminated chlorite bleb</p> <p>strong - S1-70-75 degrees to core axis EW S2 60 degrees to core axis approx. Perpendicular to S1 S0 - 35 degrees to core axis NE vein</p> <p>RQD-50-60</p> <p>minor- trace very fine grained disseminated euhedral pyrite, trace fracture subhedral pyrite</p>
38.20	119.00	<p>GREYWACKES</p> <p>Variable grey to dark grey, meter-coarse grained decimeter banded greywackes minor quartz carbonate alteration (ferro calcite) few pyrite occasionally locally oxidized</p>

From	To	Geological Log
		<p>alteration - meter pervasive ferro calcite alteration with patchy ankerite alteration locally sericite alteration, occ seam sericite, noted dark green alteration around sericite seam which was silicified locally silicified</p> <p>Str- S0 - 70 degrees to core axis vin - 35 degrees to core axis NE fractures at various angles, infilled coarse vein RQD - 75-85</p> <p>Min - trace-2% locally pyrite euhedral-sub disseminated fine-coarse fracture sub-ankerite pyrite conc along veins with fine-coarse euhedral bright pyrite</p> <p>approx. 67 meter gradual colour change to slightly green prob chlorite alteration (noted large clast? chlorite) very similar to above but with increasing pyrite, euhedral fractured blebby with reduced ferro calcite alteration / including ankerite alteration (W) S2 60 degrees to core axis S0 50 degrees to core axis S? vein 25 degrees to core axis NE</p> <p>few areas decimeter units with shem alteration W/N 84-95 meter variable alteration generally very weak locally meter-strong few areas taupe alteration</p> <p>38.20-39.60 21846 grey coarse grained greywackes locally silicification sericite, pervasive ferro calcite alteration, coarse grained bleb; subhedral pyrite few calcite veins, minor oxidized pyrite conc around veins</p> <p>58.50-59.00 21847 grey coarse grained greywackes fine grained disseminated pyrite & minor carbonatized sections; pervasive ferro calcite alteration locally silica sericite fine quartz carbonate vein</p> <p>86.00-87.60 21848 medium grained green grey crenulated, subhedral fractured pyrite, fine grained disseminated pyrite & meter-coarse euhedral pyrite locally sericite, locally hematite alteration</p> <p>102.30-103.80 21849 green grey medium grained greywackes, locally silicification & sericite, few quartz carbonate vein fine grained euhedral disseminated pyrite coarse grained fractured sub pyrite along // S1 (?)</p>
119.00	132.90	<p>GREYWACKES Weakly altered green grey greywackes ? with centimeter-decimeter bands in colors from taupe to pink; generally medium grained - cg; occassional quartz carbonate vein locally weakly magnetic; numerous quartz eye decimeter sized units poss top uphole</p> <p>alteration -with variable ankerite, chlorite, hematite, altn; locally silicified, very with locally sericite alteration some quartz carbonate vein</p> <p>strong- S0-70-80 degrees to core axis (banding); S2 70 degrees to core axis perpendicular to SC RQD 80 minor-fine-medium grained py; some euhedral bright, some fract-subhedral bleb trace-1% oval with chlorite, black minor (magnetite) radiating into qtz; few similar vnlt; pyrite is generally</p>

From	To	Geological Log
		blebby, very fractured dull colored 130.90-132.40 21850 few coddled quartz carbonate vein, variable silicified, hematite, fine-medium grained pyrite usual frac subhedral bleb
132.90	137.20	GREYWACKES Pink with kapeka alteration with faint to no bedding visible, generally coarse grained .5 meter grading to beige near central part of unit locally magnetic alteration- meter hematite, with ptch ankerite alteration very few quartz carbonate vein locally occasional ferro calcite v; few along blebs chlorite & fuchsitic with variable sericite alteration minor local silicified, fuchsite halo bleached chlorite meter pink fuchsite in beige veins. Stringer - fractures sub perpendicular to core axis, 85 degrees to core axis S0 bands RQD- 50 minor - rare euhedral pyrite
137.20	194.90	GREYWACKES Grey-light grey medium grained - coarse grained gerdie?? centimeter-decimeter banded variably altered some quartz carbonate vein alteration n- with-meter pervasive ankerite alteration, some quartz carbonate vein (fe calcite) variable sericite alteration occasionally with chlorite alteration -areas or slightly vuggy texture with rare silicification locally interval of meter sericite alteration with crenulated banding few coddled quartz carbonate vein Str - S1- 75 degrees to core axis - veining // to S1, sometimes crenulated by S2 some veining 35 degrees to core axis - 20 degrees to core axis SE & fractures RQD - 60 - 70 S0- 70-80 degrees to core axis broken rock at 149 meter minor trace euhedral fine grained pyrite, trace coarse grained bleby pyrite usually concentrated near vein interval 0.3&0.1 meter @ 187.7 & 191.5 light yellow beige millimeter banded (foliation) black/yellow; meter ankerite alteration numerous cubic shaped pits; once pyrite yellow-pink albite? interval 191.8 - 0.3 meter fractured sub // to core axis quartz carbonate filled 177.10-178.60 21851 check sample few; quartz carbonate vein with pervasive ankerite altn; ferro calcite very fine- medium grained pyrite euhedral medium grained - coarse grained grey wacke occasional bleb coarse grained pyrite
194.90	208.40	GREYWACKES Grey with intervals hematite (orange pink); green ser; beige ser; moderate vein centimeter-decimeter banding faint kapeka type intervals with magnetite medium grained-coarse grained generally alteration-along blebs or albite; locally meter hematite altn; variable W-S sericite altn; pervasive meter ankerite alteration, calcite veins. ?? Veins pure ser; locally silicification occ

From	To	Geological Log
		<p>Stringer - veins usually // bands / foliation 80-85 dcta, albite blebs along // foliation S1 occasionally contorted occasional veins 15 degrees to core axis fractures 20-30 degrees to core axis, 199.3 breccia silicification - .1 meter few coddled quartz carbonate vein</p> <p>RQD 70-80 two areas 0 - 198.7 meter 200.9 (rubbly)</p> <p>minor - trace brittle euhedral pyrite medium grained - fine grained occ coarse grained ; trace blebby pyrite medium grained locally x 1% pyrite 199.30-200.90 21852 grey-pink intervals minor hematite alteration , locally silicification, with ser; with-minor ankerite alteration few quartz carbonate vein (breccia silicification intervals - .15 meter 1% pyrite sub bleb fractures medium grained - fine grained) euhedral-bleb coarse-fine grained pyrite</p>
208.40	229.40	<p>GREYWACKES As above 137.2-194.9 220.30-221.80 21853 check sample with ankerite alteration few quartz carbonate vein (wg grey) with sericite alteration medium grained blebby frac, disseminated & conc near vein</p>
229.40	308.00	<p>GREYWACKES Alternating green pyrite to grey / hematite centimeter-decimeter bands, faint in some areas, variably magnetic meter-coarse grained intervals; occasional pinky beige alteration, centimeter-decimeter scale; intervals with quartz eyes 229.5-230 yellow pinky beige with green sericite foliation S1 80-85 degrees to core axis with some quartz carbonate vein</p> <p>alteration- variable hematite alteration - with-medium grained pervasive ankerite altn; meter quartz ankerite vein very. -Locally with-meter silicification rare bands pure sericite with sericite altn; alteration increasing downhole - black minor magnetite occasional fine grained - medium grained disseminated pyrite. Vuggy areas with chlorite alteration</p> <p>Str - S0/1 75-95 degrees to core axis breccia zone silicified @ 247 few frac sub // to core axis</p> <p>RQD 0-60 rubble @ 245 minor - pyrite-trace-2% bleb conc along veins & diss; bright striated euhedral pyrite disseminated and near veins (not as common) (fine-coarse grained)</p> <p>@ 275.7 centimeter-meter scale crenualtion along S2 - 55 degrees to core axis</p> <p>@ 268.3 - odd texture - like courdry alteration grey/white 75 degrees to core axis NE quartz eyes, trace pyrite, alteration bands calcite / quartz black minor looks like medium grained chlorite alteration</p> <p>interval from 295-299 inc alteration silicification, hematite, quartz carbonate vein & minor see samples 21864-21866</p> <p>interval from 303.5 to 308 EOH- similar to overall unit, with inc chlorite alteration less hematite alteration. 230.40-231.90</p>

From	To	Geological Log
		<p>21854 centimeter-decimeter band alternating hematite /grey/beige few quartz carbonate vein locally silicified, with minor hematite , with ankerite alteration with sericite fine-coarse grained blebby pyrite disseminated & concentrated.</p> <p>235.90-237.40</p> <p>21855 hematite colored bands grey; locally silicified, meter hematite alteration locally sericite alteration magnetic, few quartz carbonate vein pyrite disseminated ov conc along foliation / veins , blebby fine-medium grained pyrite occasional euhedral bright</p> <p>245.50-247.10</p> <p>21856 grey / hematite alteration centimeter-decimeter bands; meter quartz carbonate vein, breccia vein @, 247; with sericite alteration locally pure sericite locally magnetic with ankerite alteration</p> <p>248.90-250.40</p> <p>21857 taupe/ hematite meter-strong silicification, very faint banding fine-medium grained bleb & euhedral pyrite</p> <p>250.50-252.00</p> <p>21858 taupe yellow - whem, ankerite, fecc meter silicification breccia textures locally , some quartz carbonate vein fine grained pyrite</p> <p>263.50-265.00</p> <p>21859 S0 // quartz carbonate vein with-meter hematite alteration log, with sericite alteration locally with-meter ankerite alteration fine grained pyrite</p> <p>274.60-276.10</p> <p>21860 quartz carbonate vein crenulated .05 meter quartz carbonate vein with trace pyrite with-meter, hematite, sericite alteration, with ankerite alteration fine grained-medium grained pyrite</p> <p>280.50-281.30</p> <p>21861 .05 meter quartz carbonate vein (sericite ggy) with-meter hematite, sericite alteration, with ankerite alteration minor silicification medium grained-fine grained pyrite - blebby & euhedral some quartz carbonate vein (vuggy) minor locally magnetic</p> <p>286.20-287.70</p> <p>21862 strong hematite, silicification altn; with minor ankerite altn; fractures @ variable?? quartz carbonate vein magnetic trace medium grained pyrite fine grained bleb & euhedral pyrite</p> <p>292.90-294.10</p> <p>21863 brown red grey fracture looking x some qcv; some veins with boudin character with minor ankerite alteration minor silicification magnetic with sericite alteration locally medium grained-fine grained euhedral & bleb</p> <p>294.80-296.20</p> <p>21864 as above in hematite alteration, inc veining .05 meter quartz carbonate vein some vuggy vein trace fine grained pyrite trace-2% very fine grained pyrite trace medium grained</p> <p>296.70-298.20</p> <p>21865 strongly altered hematite, silicification, fracture .1 meter quartz carbonate vein, with ankerite alteration coarse-medium grained pyrite note dull steel grey metallic minor stibnite</p> <p>298.20-299.70</p> <p>21866 grey banded with hematite alteration, meter silicification with vuggy quartz carbonate vein with-meter ankerite meter-coarse pyrite fine grained pyrite</p>

*** END OF HOLE *** 308.00

HOLE NO: BKP-T-19	SECTION:	GRID:WAWAITIN
-------------------	----------	---------------

PROJECT CODE :BLACK PEARL MINERALS INC.
 TENEMENT :P1204119
 PROSPECT :WAWAITIN
 GRID :WAWAITIN
 MAP REFERENCE:
 LOCATION :THORNELOE TWP
 HOLE TYPE :DDH

*** DRILLING SUMMARY ***

DDH	0.00 152.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	7/10/96
Date finished:	8/10/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***

NOMINAL	250.00mN	200.00mE	312.00RL
---------	----------	----------	----------

Pre-collar depth: 152 Final depth: 152.01
 Purpose of hole:
 Hole status: COMPLETE
 Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	175.00	-45.00
50.00	175.50	-44.50
100.00	180.00	-44.00
150.00	183.50	-44.50
152.00	183.50	-44.50

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	7.00	OVERBURDEN
7.00	19.00	GREYWACKES
19.00	38.80	ULTRAMAFIC KOMATIITIC FLOWS
38.80	39.90	GREYWACKES, SILTSTONE/MUDSTONE
39.90	41.50	GREYWACKES
41.50	64.00	GREYWACKES ULTRAMAFIC KOMATIITIC FLOWS
64.00	74.60	GREYWACKES, SILTSTONE/MUDSTONE
74.60	83.60	GREYWACKES
83.60	86.50	SILTSTONE/MUDSTONE, GREYWACKES
86.50	90.30	GREYWACKES
90.30	92.10	GREYWACKES
92.10	107.60	GREYWACKES
107.60	115.90	GREYWACKES
115.90	123.20	ULTRAMAFIC KOMATIITIC FLOWS
123.20	126.20	GREYWACKES
126.20	134.70	GREYWACKES
134.70	138.00	GREYWACKES



42A06SW2005 2.18336 THORNELOE 110

Checked and signed: <u>ELP</u>	Date: FEB 18 '98
--------------------------------	------------------

HOLE NO: BKP-T-19

SECTION:

GRID: WAWAITIN

138.00	142.40	ULTRAMAFIC KOMATIITIC FLOWS
142.40	152.00	GREYWACKES MAFIC VOLCANIC TUFF
152.00	152.01	MAFIC VOLCANIC TUFF
152.01		END OF HOLE

Checked and signed: _____ Date: _____

From	To	Geological Log
0.00	7.00	OVERBURDEN Swampy
7.00	19.00	GREYWACKES Moderately - strongly altered sediments (?) with no primary textures visible . The colour is generally light green 13.90-14.20 8121 thin 17.00-18.00 8122 10 centimeter sericite zone with trace - 1% very fine grained pyrite disseminated throughout
19.00	38.80	ULTRAMAFIC KOMATIITIC FLOWS Strongly altered (80% alteration) rocks of unknown primary lithology 19.90-21.40 8123 trace pyrite (+tr arsenopyrite ?) in strongly quartz carbonate sericite 24.50-25.50 8124 trace disseminated pyrite in strong mixed alteration 25.50-26.50 8125 3 centimeter oxidized quartz carbonate vein + abundant alteration 26.50-26.90 8126 20 centimeter relatively unaltered sediments 28.00-29.40 8127 80% quartz carbonate alteration 31.90-32.90 8128 minor silica alteration + abundant mixed alteration 36.10-37.10 8129 highly altered
38.80	39.90	GREYWACKES, SILTSTONE/MUDSTONE
39.90	41.50	GREYWACKES Typical sericite banded grey wacke (?) with locally abundant fine grained pyrite banded sericite alteration strong silicification or very abundant quartz carbonate alteration moderate pervasive ankeritic alteration S0/1 @ 65 degrees to core axis S2 not evident * apparently N S lineation on S0/1 plane + 45 degrees west lineation on same plane locally abundant pyrite fine grained euhedral 39.90-41.50 8130 long sample
41.50	64.00	GREYWACKES ULTRAMAFIC KOMATIITIC FLOWS Pale green, Mixed sediments and komatiitic flows. 42.10-43.70 All samples between 45.3 & 60.2 were very anomalous in As (>485 ppm) . If a correlation between As & Au exists this mineralization could be an important indicator. 4249 oxidized frac zone with abundant C03 / qc/ alteration 43.70-45.30 4250 C03 45.30-46.80 8131 numerous large irregular quartz vein with ankeritic margins with pale brown dravite. 46.80-48.30 4251 C03 48.30-49.80 4252 C03 49.80-51.30 4253 C03 51.30-52.80 8132 fuchsite / sericite alteration with a few S2 // quartz carbonate veins & a few S1 // quartz

From	To	Geological Log
		carbonate veins 52.80-53.80 8133 a few irregular + 1 S2 // quartz carbonate vein 53.80-54.30 4254 C03 54.30-55.30 8134 numerous small irregular foliations // to quartz carbonate veins. 55.30-56.60 8135 numerous numerous small irregular foliations // to quartz carbonate vein. 56.60-57.60 8136 numerous numerous small irregular foliations // to quartz carbonate vein + a few later quartz veins with trace ankerite. 57.60-59.20 4255 C03 59.20-60.20 8137 irregular quartz carbonate vein with ankerite 60.20-61.20 8138 check sample typical unit rock with no quartz carbonate veins 63.90-64.40 Mineralized grey wacke
64.00	74.60	GREYWACKES, SILTSTONE/MUDSTONE 64.40-64.90 Black argillite 8140 argillite with sericitic bands + 2% pyrite 64.90-65.20 Mineralized grey wacke 8141 pale grey zone as described above 65.20-66.20 Black argillite 8142 minor argillite in grey grey wacke with sericitic bands 3% coarse blebby 66.20-67.70 8143 grey wacke with millimeter grey cd veinlets 67.70-69.20 8144 grey wacke with millimeter grey carbonate veinlets 69.20-70.60 8145 grey wacke with millimeter grey carbonate veinlets slightly more grey carbonate + sericitic alteration 70.60-74.60 Intercalated grey wacke.
74.60	83.60	GREYWACKES Green - green/grey fine - medium grained sediments with very minor 74.60-75.90 8147 coarse unit with feldspar clots (?) 2% carbonate pyrite 75.90-77.00 8148 band sericite 77.00-78.50 8149 fine banded alteration 78.50-80.00 8150 abundant quartz carbonate 80.00-81.50 8151 strongly silicified zone 81.50-83.00 8152 laminated silicified grey wacke 83.00-83.60 4256 fine grained grey wacke with minor argillite

From	To	Geological Log
83.60	86.50	<p>SILTSTONE/MUDSTONE, GREYWACKES</p> <p>83.60-84.60 4257 graphitic argillite with FAULT ZONE & abundant quartz carbonate alteration</p> <p>84.60-85.00 4258 BS approx. Equal to .013 in argillite + grey wacke below (thick grey wacke bed)</p> <p>85.00-86.50 8153 check sample of argillites*</p> <p>much of zone not sampled</p>
86.50	90.30	<p>GREYWACKES</p> <p>Banded chloritic sediment (?) & quartz carbonate alteration (50/50) in somewhat stripped texture. 50% quartz carbonate alteration (quartz / ankerite) minor ferrocalcite chloritic alteration of sediment trace local fuchsite alteration. Alteration + S0 trend @ 65-70 degrees to core axis a few quartz carbonate alteration veinlets are irregular S2 not evident</p> <p>trace pyrite</p> <p>86.50-87.90 4259 fuchsitic</p> <p>87.90-89.40 8154 check sample banded (striped) alteration</p>
90.30	92.10	<p>GREYWACKES</p> <p>Pale brown</p> <p>90.60-92.10 8155 check sample trace + 3% very fine grained local</p>
92.10	107.60	<p>GREYWACKES</p> <p>Stongly altered</p> <p>92.10-93.10 8156 irregular quartz vein zone over 40 centimeter</p> <p>93.10-94.60 8157 mixed sericite</p> <p>94.60-96.10 8158 mixed sericite</p> <p>96.10-97.60 8159 fuchsite & ankeritic alteration</p> <p>97.60-99.10 8160 fuchsite & ankeritic alyn</p> <p>99.10-100.60 8161 fuchsite & ankeritic alteration</p> <p>100.60-102.10 8162 fuchsite & ankeritic alteration</p> <p>102.10-103.60 8163 fuchsite & ankeritic alteration</p> <p>103.60-105.10 8164 fuchsite & ankeritic alteration</p> <p>105.10-106.60 8165 fuchsite & ankeritic alteration</p> <p>106.60-107.60 8166 fuchsite & ankeritic alteration</p>
107.60	115.90	<p>GREYWACKES</p> <p>This unit is similar texturally to the last interval.</p> <p>107.60-109.10 8167 minor quartz carbonate veins</p> <p>109.10-110.60 8168 minor quartz carbonate veins</p>

From	To	Geological Log
		113.00-114.50 8169 granular text sericite / quartz carbonate / alteration check sample
115.90	123.20	ULTRAMAFIC KOMATIITIC FLOWS Dark green- bluish green fine - medium grained ultramafic volc(?) very soft. 116.30-117.30 8170 lineated 117.30-118.60 8171 fault zone with a few quartz carbonate veins 121.50-122.60 8172 very fine grained & coarse grained pyrite (1%) associated with banded
123.20	126.20	GREYWACKES Typical banded sericite . 123.20-124.70 8173 typical banded / sheared alteration with trace coarse blebby pyrite 124.70-126.20 8174 typical banded / sheared alteration with trace coarse blebby pyrite + a few 1-3 centimeter quartz carbonate veins
126.20	134.70	GREYWACKES Strongly altered interval with variable alteration type & strength. Pervasive silicification overwhelms fuchsite 126.20-127.20 8175 mixed quartz carbonate ; quartz carbonate / sericite / fuchsite ; sericite / silica / quartz carbonate ; alteration. Trace pyrite throughout 1% locally 127.20-127.50 8176 10 centimeter 20% pyrrhotite + laminated fuchsite alteration 127.50-128.50 8177 banded fuchsite 128.50-129.50 8178 banded sericite 129.50-130.50 8179 brown (calcite?) alteration + grey medium grained grey wacke (?) sericite 130.50-131.50 8180 grey sericite + banded brown (calcite?) alteration 131.50-132.50 8181 brownish banded calcite alteration + sericite / silica trace fuchsite trace dirty blebby pyrite 132.50-133.40 8182 silicified quartz carbonate vein area abundant silicified sericite / fuchsite trace pyrite 133.40-134.70 8183 mixed, banded, silicified alteration.
134.70	138.00	GREYWACKES Much like grey wacke units in the near up hole with 50% quartz carbonate alteration. Weakly ankerite
138.00	142.40	ULTRAMAFIC KOMATIITIC FLOWS Moderately altered (quartz carbonate) unit same as 115.9-123.2 not sampled
142.40	152.00	GREYWACKES MAFIC VOLCANIC TUFF Finely laminated grey wacke and mafic tuffs. 144.40-145.90 4260 8 centimeter diffuse S0/1 // quartz carbonate vein + abundant irregular qcvng 148.00-149.50 4261 a few quartz carbonate veins in laminated (?) quartz carbonate / chloritic grey wacke sediments 149.50-151.00 4262 a few quartz carbonate veins in laminated (?) quartz carbonate / chloritic grey wacke sediments. Equal to below 151.00-152.00

From	To	Geological Log
		8184 1% coarse grained pyrite associated with NNW fabric (?)
152.00	152.01	EOH Casing remains marked with 2x2 stake

*** END OF HOLE *** 152.01

HOLE NO: BKP-T-20	SECTION:	GRID:WAWAITAN
-------------------	----------	---------------

PROJECT CODE :BLACK PEARL MINERALS INC.
 TENEMENT :HS987
 PROSPECT :WAWAITIN
 GRID :WAWAITAN
 MAP REFERENCE:
 LOCATION :THORNELOE TWP
 HOLE TYPE :DDH

*** DRILLING SUMMARY ***

DDH	0.00 299.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	9/10/96
Date finished:	17/10/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***

NOMINAL	1160.00mN	-200.00mE	290.00RL
---------	-----------	-----------	----------

Pre-collar depth: 299 Final depth: 299.00

Purpose of hole:

Hole status: COMPLETE

Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination	
0.00	175.00	-45.00	
50.00	180.50	-46.00	
100.00	187.50	-44.00	
150.00	192.50	-43.00	
200.00	185.50	-42.00	
250.00	191.50	-42.00	
299.00	197.50	-42.00	

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	8.60	OVERBURDEN
8.60	51.00	GREYWACKES
51.00	59.10	GREYWACKES
59.10	108.20	GREYWACKES
108.20	118.40	GREYWACKES
118.40	144.00	GREYWACKES
144.00	156.60	GREYWACKES, SILTSTONE/MUDSTONE
156.60	169.60	GREYWACKES
169.60	176.60	GREYWACKES, SILTSTONE/MUDSTONE
176.60	181.60	GREYWACKES
181.60	209.20	GREYWACKES
209.20	245.20	GREYWACKES
245.20	299.00	GREYWACKES
299.00		END OF HOLE



42A06SW2005

2.18336

THORNELOE

120

Checked and signed: BK.P.V.

Date: FEB 18 '98

From	To	Geological Log
0.00	8.60	OVERBURDEN Very bouldery coarse ovb
8.60	51.00	GREYWACKES Variably coloured
51.00	59.10	GREYWACKES Approx. Equal to lithologic unit to that above sans oxidization 54.50-56.00 Maroon kapika type alteration (hematite) 8232 2% very fine pyrite disseminated in maroon coloured hematite alteration (kapika)
59.10	108.20	GREYWACKES Weakly altered 59.10-60.60 8233 2% coarse grained euhedral pyrite associated with moderate sericite quartz carbonate alteration 66.50-68.00 8234 moderate alteration with 2% local pyrite (3% over 15 centimeter) 68.00-69.50 8235 moderate alteration 69.50-70.50 8236 trace sphalerite + trace pyrite in 20 centimeter quartz carbonate sericite zone 70.50-72.00 8237 numerous thin quartz carbonate / sericite zones 78.60-80.10 8238 1% pyrite 84.00-85.30 8239 2% very fine pyrite in 40 centimeter moderate alteration zone with numerous irregular quartz carbonate veinlets 88.70-90.20 8240 trace fine grained pyrite approx. Equal to EW vertical quartz carbonate veinlets 94.50-95.70 8241 40 centimeter quartz carbonate / sericite zone 2% coarse pyrite 103.70-105.20 8242 1% blebby pyrite 105.20-106.70 8243 1% blebby pyrite 106.70-108.20 8244 2cm quartz carbonate vein + two 10cm units of graphitic shards in quartz carbonate / sericite matrix
108.20	118.40	GREYWACKES Dark grey to black sediments with strong graphitic component. Numerous coarse felsic clasts remain unaltered (?) <3mm . Lithologically the units look approx equal to those above (thick bedded coarse grained greywackes) strong graphitic alteration throughout or primary graphitic component very minor sericitic alteration along quartz carbonate veinlets 108.20-109.70 8245 numerous mineralized quartz carbonate veinlets check sample 109.70-111.20 8246 numerous mineralized quartz carbonate veinlets + a few bleached zones check sample 113.00-114.50 8247 numerous mineralized quartz carbonate veinlets + a few bleached zones check sample 116.90-118.40 8248 numerous mineralized quartz carbonate veinlets + a few blzones coarser grained grey wacke

From	To	Geological Log
118.40	144.00	<p>GREYWACKES Green grey moderately altered 133.80-134.50 8249 two 10cm moderately sericitized quartz carbonate altered zones 138.60-139.80 8250 numerous quartz carbonate veinlets + 10cm moderately altered zone with 1cm quartz carbonate veinlet 143.00-144.00 8251 four centimeter quartz carbonate ankerite vein 2% pyrite</p>
144.00	156.60	<p>GREYWACKES,SILTSTONE/MUDSTONE 144.00-145.50 8252 numerous "argillitic" 145.50-147.00 8253 abundant quartz carbonate veinlets in argillitic sequence 1% coarse grained euhedral (sheared) 150.50-151.50 8254 mixed grey wacke 153.60-155.10 8255 mixed grey wacke</p>
156.60	169.60	<p>GREYWACKES Locally very coarse grained sediments 157.50-159.00 8256 a few irregular quartz carbonate network veinlets 159.00-160.50 8257 a few irregular quartz carbonate network veinlets 1cm coddled carbonate veinlet 162.50-164.00 8258 2% pyrite associated with thin irregular quartz carbonate veinlet 164.00-165.50 8259 almost conglomerate (clasts to 2cm)</p>
169.60	176.60	<p>GREYWACKES,SILTSTONE/MUDSTONE 171.20-172.70 8260 trace pyrite in argillitic zone</p>
176.60	181.60	<p>GREYWACKES Grey 177.10-178.60 8261 trace very fine grained pyrite 178.60-180.10 8262 3% dirty blebby pyrite + 1% very fine grained pyrite loc'd approx. To silicified zone 180.10-181.60 8263 more argillitic approx. To min'n</p>
181.60	209.20	<p>GREYWACKES Pale grey - green grey 187.10-188.60 8264 numerous S2 + irregular quartz carbonate veinlets 197.00-198.40 8265 numerous quartz carbonate veinlets 207.70-209.20 8266 numerous S2 quartz carbonate veinlets trace chalcopyrite a few quartz carbonate veinlets (check sample)</p>
209.20	245.20	<p>GREYWACKES This is a broad zone of generally moderate locally weak sericite / quartz carbonate & quartz carbonate vein alteration. Minor argillitic component exists locally. 209.20-209.70 8267 20 centimeter silicified 209.70-211.20 8268 check sample 212.80-214.00</p>

From	To	Geological Log
		8269 5% very fine grained pyrite over 20cm 215.60-216.60 8270 10cm silicified zone (S2 ?) 2% very fine grained pyrite 223.00-224.00 8271 sericitic alteration 224.00-225.50 8272 sericitic alteration 225.50-227.00 8273 sericitic alteration 227.00-228.50 8274 sericitic alteration 231.00-232.50 8275 1% chalcopyrite in 1cm 232.50-234.00 8276 1 25 centimeter low angle vein & 1 40 centimeter vein // foliation. 234.00-235.50 8277 numerous 237.00-238.50 8278 a few 243.70-245.20 8279 end of interval check sample
245.20	299.00	GREYWACKES Grey green 245.20-246.70 8280 a few quartz carbonate veinlets 261.60-263.10 8281 1% very fine pyrite in 20cm silicified zone 263.10-264.60 8282 1% very fine pyrite in 2 10-15 centimeter silicified zones 276.00-277.50 8283 weakly silicified 279.30-280.80 8284 blcd sericitic zones (2 280.80-282.30 4263 green 284.00-285.00 4264 green 285.00-286.50 8285 bleached coarse grained unit with quartz carbonate alteration 286.50-288.00 4265 green 290.30-291.80 4266 trace very fine grained disseminated pyrite associated with thick bedded meter - coarse grained greywackes 297.50-299.00 8286 EOH sample

*** END OF HOLE *** 299.00

HOLE NO: BKP-T-21

SECTION:

GRID:WAWAITAN

PROJECT CODE :BLACK PEARL MINERALS INC.
 TENEMENT :P1211136
 PROSPECT :WAWAITIN
 GRID :WAWAITAN
 MAP REFERENCE:
 LOCATION :THORNELOE TWP
 HOLE TYPE :DDH

*** DRILLING SUMMARY ***

DDH	0.00 212.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	8/10/96
Date finished:	10/10/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***

NOMINAL	-210.00mN	-300.00mE	315.00RL
---------	-----------	-----------	----------

Pre-collar depth: 212 Final depth: 212.00

Purpose of hole:

Hole status: COMPLETE

Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	176.00	-45.00
50.00	183.50	-45.00
100.00	187.50	-44.75
150.00	187.50	-44.50
200.00	193.50	-44.00
212.00	193.50	-44.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	6.00	OVERBURDEN
6.00	19.60	GREYWACKES
19.60	26.80	GREYWACKES
26.80	47.00	GREYWACKES
47.00	55.80	GREYWACKES
55.80	57.50	ULTRAMAFIC KOMATIITIC FLOWS
57.50	58.00	GREYWACKES
58.00	61.10	GREYWACKES
61.10	65.50	GREYWACKES
65.50	69.40	GREYWACKES
69.40	70.40	ULTRAMAFIC KOMATIITIC FLOWS
70.40	85.20	GREYWACKES
85.20	93.40	GREYWACKES
93.40	103.40	GREYWACKES
103.40	105.80	SILTSTONE/MUDSTONE
105.80	113.30	GREYWACKES
113.30	132.30	GREYWACKES
132.30	136.00	GREYWACKES
136.00	143.60	ULTRAMAFIC KOMATIITIC FLOWS GREYWACKES
143.60	148.60	GREYWACKES



42A06SW2005

2.18336

THORNELOE

130

Checked and signed:

BK.P.W.

Date:

FEB 18 '98

HOLE NO: BKP-T-21

SECTION:

GRID: WAWAITAN

148.60	157.80	GREYWACKES ULTRAMAFIC KOMATIITIC FLOWS
157.80	172.00	GREYWACKES
172.00	175.40	QUARTZ VEIN ZONE
175.40	212.00	CONGLOMERATE
212.00		END OF HOLE

Checked and signed: _____ Date: _____

From	To	Geological Log
0.00	6.00	OVERBURDEN
6.00	19.60	GREYWACKES Relatively unaltered
19.60	26.80	GREYWACKES Similar unit with less distinct bedding & generally obscured bedding features. Weak variable alteration throughout 22.80-24.30 8185 clotted chlorite alteration + 3% very fine grained disseminated pyrite locally 25.80-26.80 8186 strong NNE fabric 1% coarse euhedral pyrite
26.80	47.00	GREYWACKES Moderately altered rocks of unknown (dubious) primary nature. Generally 26.80-28.20 Mixed 28.20-29.70 Pale brown orange calcite sericite alteration 29.70-35.40 Mixed 35.40-35.80 Soft dark green chloritic rock with 50% quartz carbonate alteration 35.80-38.30 Orange / brown laminated alteration with abundant quartz carbonate alteration 37.3-38.8 4267 abundant hematite / quartz carbonate alteration 38.30-40.40 Typical sericitic 40.40-40.50 Chloritic band 40.3 - 41.3 8188 chloritic layer + gouged FAULT ZONE 40.50-40.90 Powdery 40.90-45.70 Ochre dark green 45.70-47.00 Brownish sericitic
47.00	55.80	GREYWACKES More typical green-pale grey-green 53.00-54.50 8190 abundant quartz carbonate alteration 54.50-55.20 8191 spaced S2 cleavage in sericitic
55.80	57.50	ULTRAMAFIC KOMATIITIC FLOWS Very soft
57.50	58.00	GREYWACKES Same as grey wacke (47.0-55.8m)
58.00	61.10	GREYWACKES Dark grey decimeter bedded 58.00-59.50 8192 minor laminated sericite 59.50-61.00 8193 numerous 61.00-62.50 8194 minor grey carbonate veinlets
61.10	65.50	GREYWACKES Pervasively moderately sericitic & quartz carbonate altered grey wacke. 62.50-64.00 8195 numerous oxidized NE vertical quartz carbonate veinlets 64.00-65.50

From	To	Geological Log
		8196 green sericite & grey quartz carbonate (approx. Looking to lower zone)
65.50	69.40	GREYWACKES Green & brown sericite 68.40-69.40 8197 10cm chloritic
69.40	70.40	ULTRAMAFIC KOMATIITIC FLOWS Ultramafic rock unit (?) approx. Equal to ultramafic above (55.8-57.5m) 69.40-70.40 8198 check sample ultramafics
70.40	85.20	GREYWACKES Generally banded sericite + quartz carbonate alteration with chlorite from 70.8-71.2 meter 75.40-76.90 8199 check sample
85.20	93.40	GREYWACKES Dark grey fine - locally coarse grained 85.20-86.20 8200 30cm silicified zone (hazy silicification) with trace blebby pyrite 88.10-89.60 8201 check sample 92.40-93.40 8202 4cm greyish quartz carbonate vein + check sample end of interval
93.40	103.40	GREYWACKES Fairly typical 93.40-94.90 8203 check sample top of interval 98.00-99.50 8204 check sample banded + a few quartz carbonate veins with trace fuchsite / sericite 99.50-101.00 8205 check sample + 1cm core axis // quartz carbonate vein over 40cm 102.40-103.40 8206 sericite / fuchsite alteration + numerous grey
103.40	105.80	SILTSTONE/MUDSTONE This zone encompasses 3 discrete graphitic units. 103.40-104.60 8207 quartz carbonate alteration in mixed grey wacke. 104.60-105.80 8208 dominantly argillite.
105.80	113.30	GREYWACKES Well mineralized pale grey fine - coarse grained sediments with poorly developed layering (decimeter) intercalated with sheared 105.80-107.00 8209 silicified sericitic / fuchsite laminated rock with numerous quartz carbonate veins 107.00-108.00 8210 silicified sericitic / fuchsite laminated rock numerous quartz carbonate veins 108.00-108.90 8211 90cm grey zone 20% quartz carbonate 108.90-110.00 8212 20cm fuchsite + 90cm coarse grained sericitic unit with mild fuchsite (hybrid?) 110.00-110.80 8213 green fuchsite / quartz carbonate unit 110.80-112.30 8214 two grey zones separated by 20cm fuchsite alteration 1-2% disseminated very fine grained pyrite 112.30-113.30 8215 hybrid looking rock ? coarse grained grey wacke ?

From	To	Geological Log
113.30	132.30	<p>GREYWACKES Bright green & grey well laminated 113.30-114.80 8216 check sample top of interval (5cm grey rock with 1% pyrite) 117.00-118.50 8217 check sample (coddled looking green) 118.50-120.00 8218 more laminated green grey 120.00-120.30 8219 10cm grey coddled vein 122.40-123.90 8220 check sample Middle of interval 130.30-131.80 8221 check sample end of interval 131.80-132.30 8222 40cm grey quartz carbonate vein</p>
132.30	136.00	<p>GREYWACKES Millimeter laminated chlorite 134.10-135.60 8223 check sample + 10cm weak brown sericitic alteration band (trace pyrite)</p>
136.00	143.60	<p>ULTRAMAFIC KOMATIITIC FLOWS GREYWACKES Very soft, very chloritic wholly altered sediments or fine - medium grained ultramafic volcanic with 20 - 40% white dolomitic alteration. 136.00-137.50 8224 check sample</p>
143.60	148.60	<p>GREYWACKES Same as 132.0-136.0. 145.00-146.00 8225 as above with 30% quartz carbonate lamnae + a few 146.00-147.00 8226 25cm quartz carbonate vein + 3cm quartz carbonate vein in same</p>
148.60	157.80	<p>GREYWACKES ULTRAMAFIC KOMATIITIC FLOWS Either wholly altered grey wacke sediments or moderately altered mafic - ultramafic flows - same as 136.0-143.6m. 148.60-150.10 8227 check sample 156.30-157.80 8228 check sample</p>
157.80	172.00	<p>GREYWACKES Finely laminated 157.80-159.30 8229 check sample 170.50-172.00 8230 check sample</p>
172.00	175.40	<p>QUARTZ VEIN ZONE Numerous larger quartz carbonate veins seperated by typical laminated material (see above) sericitic chlorite alteration approx. Equal to quartz carbonate veins quartz carbonate veins are quartz, 70% ankerite 10% calcite 20% S0/1 @ 85 degrees to core axis variable approx. Equal to quartz carbonate veins local minor crenulation S2 1 NW striking NE 55 dipping quartz carbonate vein trace coarse grained pyrite associated with quartz carbonate veins 172.00-173.00</p>

From	To	Geological Log
		8231 numerous 1-4 centimeter quartz carbonate veins 173.00-174.50 21867 4 10+ centimeter quartz carbonate veins 1 22cm quartz carbonate vein 174.50-175.40 21868 numerous 1-4 centimeter quartz carbonate veins 22cm quartz carbonate vein
175.40	212.00	CONGLOMERATE Tiger rock laminated green & white / grey rock millimeter laminated ... Probably grey wacke sediments possibly locally grey wacke . Some clasts (?) appear to be volcanic (small brown leucoxenes) & locally the banding (striping is polymictic) variable sericite 182.00-183.50 21869 a few quartz carbonate veins (<1cm) in tiger rock 194.10-195.60 21870 check sample with 14cm quartz carbonate vein 210.50-212.00 21871 check sample

*** END OF HOLE *** 212.00

HOLE NO: BKP-T-22	SECTION:	GRID:WAWAITAN
-------------------	----------	---------------

PROJECT CODE :BLACK PEARL MINERALS INC.
 TENEMENT :HS983
 PROSPECT :WAWAITIN
 GRID :WAWAITAN
 MAP REFERENCE:
 LOCATION :THORNELOE TWP
 HOLE TYPE :DDH

*** DRILLING SUMMARY ***

DDH	0.00	350.00	BQ
Drill contractor:	NOREX		
Drill rig:			
Date started:	17/10/96		
Date finished:	21/10/96		
Logged by:	BK POLK		
Relogged by:			
Sampled by:			

*** COLLAR COORDINATES AND RL ***

NOMINAL	9.10mN	-499.80mE	310.00RL
---------	--------	-----------	----------

Pre-collar depth: 350 Final depth: 350.00
 Purpose of hole:
 Hole status: COMPLETE
 Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	175.00	-45.00
50.00	180.50	-45.00
100.00	184.50	-45.00
150.00	185.50	-45.00
200.00	190.50	-45.00
250.00	192.50	-45.00
300.00	194.50	-44.50
350.00	196.50	-44.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

2

*** SUMMARY LOG ***

0.00	9.00	OVERBURDEN
9.00	57.00	SILTSTONE/MUDSTONE, GREYWACKES
57.00	96.00	GREYWACKES, SILTSTONE/MUDSTONE
96.00	152.30	GREYWACKES
152.30	164.80	GREYWACKES
164.80	166.00	QUARTZ VEIN ZONE
166.00	169.20	GREYWACKES
169.20	205.30	GREYWACKES, SILTSTONE/MUDSTONE
205.30	253.00	ULTRAMAFIC KOMATIITIC FLOWS GREYWACKES
253.00	259.60	ULTRAMAFIC KOMATIITIC FLOWS
259.60	273.20	GREYWACKES
273.20	278.00	GREYWACKES
278.00	301.50	ULTRAMAFIC KOMATIITIC FLOWS
301.50	302.50	QUARTZ-FELDSPAR PORPHYRY
302.50	316.40	GREYWACKES



42A06SW2005 2.18336 THORNELOE 140

Checked and signed: <u> BK.P.V. </u>	Date: <u> FEB 18 '98 </u>
--	---

HOLE NO: BKP-T-22

SECTION:

GRID:WAWAITAN

316.40	330.80	CONGLOMERATE
330.80	332.60	QUARTZ-FELDSPAR PORPHYRY
332.60	350.00	CONGLOMERATE
350.00		END OF HOLE

Checked and signed: _____ Date: _____

From	To	Geological Log
0.00	9.00	OVERBURDEN Very swampy ground
9.00	57.00	SILTSTONE/MUDSTONE, GREYWACKES 29.00-30.50 8287 trace pyrite 35.00-36.50 8288 check sample (quartz carbonate alteration) 47.00-48.50 8289 abundant quartz carbonate alteration 48.50-49.50 8290 abundant quartz carbonate alteration 54.50-56.00 8291 4cm + 8cm S2 contorted quartz carbonate veins
57.00	96.00	GREYWACKES, SILTSTONE/MUDSTONE 62.00-63.50 8292 10cm oxidized quartz carbonate vein 69.10-70.60 8293 check sample minor quartz carbonate / silicification 82.00-83.00 8294 S2 contorted argillite 83.00-84.50 8295 check sample argillite 89.00-90.20 8296 90cm strongly silicified zone 95.10-96.60 8297 moderately sericitic / silc alteration
96.00	152.30	GREYWACKES With a few thin intervals argillite. Amount of argillite declines with depth. 101.80-102.20 8298 20cm q coddled ankerite vein S1 // 120.20-121.70 8299 3cm coddled q ankerite vein in weakly argillitic grey wacke (check sample) 148.50-150.00 8300 a few thin quartz carbonate veins
152.30	164.80	GREYWACKES Thick bedded. Fine - medium grained. Strong silicification. 152.30-153.80 8301 minor strong silicification 158.00-159.50 8302 strongly silicified 159.50-161.00 8303 strongly silicified
164.80	166.00	QUARTZ VEIN ZONE Obscure by strong local silicification . The colour is grey to pale grey 164.80-166.20 8304 QUARTZ VEIN ZONE 30cm
166.00	169.20	GREYWACKES Pervasive weak moderate to strong alteration. 166.20-167.70 8305 minor
169.20	205.30	GREYWACKES, SILTSTONE/MUDSTONE Finely laminated to centimeter laminated. Locally up to medium grained grey wacke. Locally argillitic 171.80-172.30 8306 patchy S0/1 // silicification 172.30-173.30 8307 15cm quartz carbonate network

From	To	Geological Log
		189.50-191.00 8308 3 197.00-198.50 8309 strong decimeter scale S2 crenulations with motion along S2 fractures
205.30	253.00	ULTRAMAFIC KOMATIITIC FLOWS GREYWACKES Massive ultramafic komatiitic flow (?) highly altered. Fuchsite present. Minor grey wacke layers. 208.20-209.70 8311 a few thin quartz carbonate veins 212.50-214.00 8312 abundant quartz carbonate alteration coddled ankerite 219.60-221.10 8313 coarse textured granular like rock (?) a few grey quartz carbonate veinlets (often S2) 221.10-222.10 8314 sediment unit (grey wacke) 222.10-223.60 8315 numerous quartz carbonate vein (coddled or grey quartz carbonate) 226.90-227.90 8316 abundant grey 227.90-229.40 8317 abundant 243.50-245.00 4271 sheared (?) medium grained grey wacke with quartz carbonate + trace fuchsite 248.00-249.50 4272 sheared (?) medium grained grey wacke with quartz carbonate + trace fuchsite 251.80-252.90 8318 5% coarse blebby pyrite locally
253.00	259.60	ULTRAMAFIC KOMATIITIC FLOWS Strong carbonate alteration (ankerite) throughout but dominantly calcite 256.50-257.50 8319 fuchsite bearing 10cm quartz carbonate vein & a few thin quartz carbonate veins
259.60	273.20	GREYWACKES a mixed unit of grey wacke 260.00-261.00 Grey wacke 261.00-261.70 Altered ultramafic komatiitic flow 261.70-261.90 Porphyry 261.7-263.2 8320 small porphyry + sediments 264.70-265.30 8310 30cm sericitic QUARTZ VEIN ZONE + minor pervasive sericite 266.40-267.10 8322 porphyry 267.10-268.20 Grey wacke 268.20-270.70 Altered ultramafic komatiitic flow 270.70-273.20 271.7-273.2 8323 trace pyrite in moderately altered grwy
273.20	278.00	GREYWACKES Bright green and white 273.20-274.70 8324 abundant quartz carbonate alteration a few grey veinlets 274.70-276.20 8325 very fuchsitic sediments 1% dirty blebby pyrite locally 276.20-277.70 8326 very fuchsitic sediments 1% dirty blebby pyrite locally

From	To	Geological Log
278.00	301.50	<p>ULTRAMAFIC KOMATIITIC FLOWS Numerous true komatiitic flows. Dark bluish black, massive and carbonated. 278.00-279.70 Ultramafic flow 279.70-281.70 Locally fucsitic partly altered grey wacke 8327 vuggy 281.70-291.80 Komatiitic ultramafic flows with minor altered grey wacke 8328 check sample 291.80-293.70 Altered grey wacke 293.70-294.80 Altered ultramafic komatiite 294.80-299.20 Grey wacke locally sericitic & pyrite mineralized 8331 3% very fine grained pyrite quartz carbonate / silicified partly altered grey wacke. 294.5-295.7 4273 fractured chloritic zone with quartz carbonate alteration + a few veinlets 295.7 - 297.1 4274 fractured chloritic grey wacke with quartz carbonate alteration approx. To 8331 below 297.8 - 298.8 4275 fractured chloritic grey wacke with quartz carbonate alteration below 8331 298.8 - 299.7 4276 very chloritic margin with sericitic alteration + abundant quartz carbonate alteration 299.20-301.50 Partly altered ultramafic komatiite. Lower contact massive chlorite</p>
301.50	302.50	<p>QUARTZ-FELDSPAR PORPHYRY See porphyries below 301.50-303.00 8332 very silicified zone</p>
302.50	316.40	<p>GREYWACKES Dark green variable grain size. Vocanic derived sediments. 303.00-304.50 8333 a few 3-5 centimeter quartz carbonate veins 307.40-308.90 8334 a few S1 // quartz carbonate veins 313.40-314.90 8335 numerous quartz carbonate sericite veinlet 314.90-316.40 8336 8cm q chlorite vein</p>
316.40	330.80	<p>CONGLOMERATE Tiger rock 329.30-330.80 8337 check sample "tiger rock"</p>
330.80	332.60	<p>QUARTZ-FELDSPAR PORPHYRY Coarse grained sericitic quartz eye porphyry with feldspar. 330.80-331.80 8338 check sample porphyry</p>
332.60	350.00	<p>CONGLOMERATE Tiger rock 348.50-350.00 8339 EOH sample</p>

*** END OF HOLE *** 350.00

HOLE NO: BKP-T-23 SECTION: GRID:WAWAITAN

PROJECT CODE : BLACK PEARL MINERALS INC.
 TENEMENT : P1204119
 PROSPECT : WAWAITIN
 GRID : WAWAITAN
 MAP REFERENCE:
 LOCATION : THORNELOE TWP
 HOLE TYPE : DDH

*** DRILLING SUMMARY ***

DDH	0.00 113.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	22/10/96
Date finished:	23/10/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***
 NOMINAL 363.00mN 250.00mE 285.00RL

Pre-collar depth: 113 Final depth: 113.00

Purpose of hole:

Hole status: COMPLETE

Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	190.00	-71.00
14.00	191.50	-71.00
65.00	200.00	-68.00
113.00	200.00	-67.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	6.00	OVERBURDEN
6.00	13.50	MAFIC VOLCANICS UNDIFFERENTIATED
13.50	16.40	MAFIC VOLCANICS UNDIFFERENTIATED
16.40	44.50	MAFIC VOLCANICS UNDIFFERENTIATED QUARTZ-FELDSPAR PORPHYRY GREYWACKES
44.50	55.80	GREYWACKES MAFIC VOLCANICS UNDIFFERENTIATED
55.80	63.70	SILTSTONE/MUDSTONE, GREYWACKES
63.70	85.80	GREYWACKES
85.80	101.00	GREYWACKES
101.00	113.00	PEGMATITES
113.00		END OF HOLE

2-1-98



42A06SW2005

2.18336

THORNELOE

150

Checked and signed:

[Signature]

Date: FEB 18 '98

From	To	Geological Log
0.00	6.00	OVERBURDEN Organics + till
6.00	13.50	MAFIC VOLCANICS UNDIFFERENTIATED Dark green fine - medium grained. Chloritic, sheared.
13.50	16.40	MAFIC VOLCANICS UNDIFFERENTIATED Similar volcanic rocks with elevated quartz carbonate alteration 15.00-16.40 8340 10cm quartz carbonate / sericite zone with 1% coarse blebby pyrite @ 15.6m
16.40	44.50	MAFIC VOLCANICS UNDIFFERENTIATED QUARTZ-FELDSPAR PORPHYRY GREYWACKES UPPER ZONE The upper zone in hole 23 is fairly typical of the same unit represented in other previous drill holes. The standard alteration & lithology are all present i.e magnetite 16.40-18.00 Fuchsitic / sericitic zone with abundant quartz carbonate 18.00-19.90 Mafic volcanics with strong mauve alteration 19.90-20.40 Felsic Intrusive pale creamy yellow green porphyry (?) highly sheared ankeritic 20.40-22.40 Grey wacke pale green 22.40-24.90 Altered mafic volcanics sedimentary looking locally ; mauve alteration silicification is strong 24.90-25.00 Grey wacke 10cm chloritic pyritic band // S0/1 (with sericite as well) 8346 mauve / chloritic sericite alteration 2% pyrite dirty blebby associated with 20cm sericite / chlorite zone at end of interval 25.00-25.50 Mafic volcanics mauve silicified zone 25.50-28.50 Mafic volcanics laminated sedimentary looking sericitic 28.50-29.30 Mafic volcanics local bulbous textured quartz carbonate / sericite in darker chlorite up to matrix 29.30-32.80 Mafic volcanics mauve rock 32.80-33.50 Intensely altered. Could be anything pale yellow-green 33.50-36.20 Felsic intrusive. Highly altered porphyry creamy orange 36.20-39.60 Intensely altered felsic intrusive above with fine grained disseminated magnetite @ end of interval 39.60-43.70 Intensely altered well developed porphyry with hematite 43.70-44.50 Pale orange poorly developed or sheared felsic volcanics with abundant fine grained magnetite may be altered mafic volcanics 8354 2% seamy pyrite
44.50	55.80	GREYWACKES MAFIC VOLCANICS UNDIFFERENTIATED Locally weakly laminated. Locally volcanic looking sericitic, quartz carbonate alteration. 44.50-46.00 8355 volcanic looking rock with minor tourmaline in quartz carbonate alteration 46.00-47.50 8356 numerous quartz carbonate veinlets some S0/1 // some irregular 47.50-49.00

From	To	Geological Log
		<p>8357 numerous quartz carbonate veinlets some S0/1 // some irregular 49.00-50.50</p> <p>8358 numerous quartz carbonate veinlets some S0/1 // some irregular 50.50-52.00</p> <p>8359 numerous quartz carbonate veinlets some S0/1 // some irregular 52.00-53.50</p> <p>8360 numerous quartz carbonate veinlets some S0/1 // some irregular 53.50-55.00</p> <p>8361 numerous quartz carbonate veinlets some S0/1 // some irregular 1% dirty blebby pyrite locally 55.00-55.80</p> <p>8362 numerous quartz carbonate veinlets some S0/1 // some irregular</p>
55.80	63.70	<p>SILTSTONE/MUDSTONE, GREYWACKES Black argillite unit intercalated with with sericitic grey wacke. 55.80-56.30</p> <p>8363 20cm quartz carbonate vein associated with FAULT ZONE at top of interval 1% coarse blebby 56.30-57.50</p> <p>4279 a few irregular quartz carbonate veins core axis // 57.50-59.00</p> <p>4280 a few irregular quartz carbonate veins core axis // 59.00-60.50</p> <p>8364 pink quartz carbonate veinlets S dipping 60.50-62.00</p> <p>8365 very coarse grained sericitic sed (possibly felsic intrusive) + interbedded argillite.</p>
63.70	85.80	<p>GREYWACKES Fairly typical banded sericitic sediments with strong ochre green alteration overprint (dyke proximal alteration). Pervasive ankerite alteration. 65.50-66.90</p> <p>8366 abundant quartz carbonate alteration (veins) with sericitic margins 68.00-69.00</p> <p>8367 abundant quartz carbonate alteration (veins) with sericitic margins 76.10-77.60</p> <p>8368 pink 77.60-79.10</p> <p>8369 numerous irregular quartz carbonate veins in same 84.30-85.80</p> <p>8370 low less than sediments (S2?) with locally abundant quartz carbonate alteration</p>
85.80	101.00	<p>GREYWACKES Sediments ? minor remnant bedding indicates sedimentary nature but dyke related alteration & silicification 85.80-87.30</p> <p>8371 strong patchy silicification / bleaching / ankerite 87.30-88.80</p> <p>8372 strong patchy silicification / bleaching / ankerite 88.80-90.30</p> <p>8373 abundant silica overprinted sericite / quartz carbonate alteration 90.30-91.80</p> <p>8374 patchy silicification 91.80-93.20</p> <p>8375 dark sericitic sediments + diabase with two larger bleached fragments 98.00-99.50</p> <p>8376 strong silicification</p>

From	To	Geological Log
101.00	113.00	PEGMATITES Dyke rock with minor remnant sediments local breccia quartz carbonate / dyke structure // to core axis

*** END OF HOLE *** 113.00

HOLE NO: BKP-T-24 SECTION: GRID: WAWAITAN

PROJECT CODE : BLACK PEARL MINERALS INC.
 TENEMENT : P871705
 PROSPECT : WAWAITIN
 GRID : WAWAITAN
 MAP REFERENCE:
 LOCATION : THORNELOE TWP
 HOLE TYPE : DDH

*** DRILLING SUMMARY ***

DDH	0.00 329.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	23/10/96
Date finished:	29/10/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***

NOMINAL	395.00mN	350.00mE	285.00RL
---------	----------	----------	----------

Pre-collar depth: 329 Final depth: 329.00

Purpose of hole:

Hole status: COMPLETE

Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	182.00	-60.00
11.00	187.50	-61.50
62.00	194.50	-60.50
110.00	197.50	-59.50
155.00	199.50	-57.50
251.00	201.50	-54.50
302.00	203.50	-52.50
329.00	203.50	-52.50

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	3.00	OVERBURDEN
3.00	49.60	MAFIC VOLCANICS UNDIFFERENTIATED
49.60	100.00	UPPER ZONE MAFIC VOLCANICS UNDIFFERENTIATED
100.00	106.70	GREYWACKES
106.70	115.00	SILTSTONE/MUDSTONE, GREYWACKES
115.00	125.00	GREYWACKES
125.00	132.40	GREYWACKES
132.40	134.00	GREYWACKES
134.00	145.50	GREYWACKES, SILTSTONE/MUDSTONE
145.50	151.00	GREYWACKES, SILTSTONE/MUDSTONE
151.00	155.60	GREYWACKES
155.60	180.50	GREYWACKES, SILTSTONE/MUDSTONE
180.50	182.40	GREYWACKES QUARTZ VEIN ZONE

2-1-98



42A06SW2005

2.18336

THORNELOE

160

Checked and signed: BAW

Date: FEB 18 98

HOLE NO: BKP-T-24

SECTION:

GRID:WAWAITAN

182.40	194.00	GREYWACKES
194.00	198.10	GREYWACKES, SILTSTONE/MUDSTONE
198.10	214.50	GREYWACKES
214.50	220.10	GREYWACKES, SILTSTONE/MUDSTONE
220.10	234.10	GREYWACKES
234.10	235.20	GREYWACKES
235.20	263.70	GREYWACKES
263.70	286.00	GREYWACKES, SILTSTONE/MUDSTONE
286.00	321.10	GREYWACKES
321.10	329.00	GREYWACKES, SILTSTONE/MUDSTONE
329.00		END OF HOLE

Checked and signed: _____ Date: _____

From	To	Geological Log
0.00	3.00	OVERBURDEN
3.00	49.60	<p>MAFIC VOLCANICS UNDIFFERENTIATED Presumed altered volcanics with quartz carbonate / sericite / chlorite alteration 25.50-26.50 8377 1% pyrite associated 33.00-34.00 8378 a few S1/0 // tourmaline bearing quartz carbonate veins 35.20-36.70 8379 a few S1/0 // tourmaline bearing quartz carbonate veins 38.00-39.50 8380 a few S1/0 // tourmaline bearing quartz carbonate veins</p>
49.60	100.00	<p>UPPER ZONE MAFIC VOLCANICS UNDIFFERENTIATED GREYWACKES Well developed upper zone with abundant magnetite & locally abundant pyrite mineralization lithology & alteration as follows S1/0 well developed @ 45-60 degrees to core axis a few S2 fractures & quartz carbonate veins larger quartz carbonate veins apparently S2 related 49.60-52.20 Creamy green / mauve 52.20-64.70 Orange / red magnetic porphyritic unit 8381 contact between hem'd felsic intrusives & and mafic volcanics. 64.70-67.10 Green quartz carbonate altered 67.10-67.30 Bulbous quartz carbonate (albite ?) / chlorite alteration 67.30-70.90 Green quartz carbonate altered / chloritic to mauve alteration up hole with depth 70.90-73.30 Mauve altered fine grained sediments ? 73.30-76.30 Creamy 76.30-77.10 30cm reddish porphyry with creamy green (pale) margins 77.10-78.10 Creamy pale green porphyry ? 78.10-78.30 Porphyry magnetic pale orange 78.30-78.60 Creamy pale green alteration 78.60-79.30 Porphyry 79.30-83.20 Pale green altered rock with numerous large quartz carbonate veins 8382 contact between hem'd felsic intrusives & pale creamy green alteration 83.20-84.90 Pale green porphyry 84.90-89.00 Black & orange porphyry very magnetic 8387 1% carbonate pyrite in black / reddish felsic intrusive 8388 1% carbonate 89.00-91.20 Orange alteration with minor black / orange felsic intrusives 8389 mixed alteration 91.20-91.40 Black magnetic porphyry 91.40-92.70</p>

From	To	Geological Log
		<p>Pale green creamy sediments ? 8390 3% carbonate 92.70-97.00 Red / orange / black mafic intrusives 8391 1% carbonate pyrite in red black mafic intrusives 8392 2% pyrite throughout 4% associated with quartz carbonate alteration in mixed red / black mafic intrusives and pale green alteration. 97.00-99.00 Pale orange mafic intrusives. 99.00-100.00 Green mauve sediments 8393 trace pyrite associated with quartz carbonate alteration in waning UPPER ZONE alteration</p>
100.00	106.70	<p>GREYWACKES Pale grey highly altered sediments. Bedding features obliterated. 100.00-101.00 8394 grey grey wacke. 101.00-102.50 8395 grey grey wacke 102.50-104.00 8396 grey grey wacke 104.00-105.00 8397 5% seamy pyrite 105.00-106.00 8398 3% dirty blebby pyrite 106.00-106.70 8399 3% dirty blebby pyrite</p>
106.70	115.00	<p>SILTSTONE/MUDSTONE, GREYWACKES 106.70-108.20 8400 approx. To zone above 108.20-109.70 8401 1cm quartz carbonate vein + 12 quartz carbonate alteration patch 113.20-114.70 8402 trace blebby pyrite</p>
115.00	125.00	<p>GREYWACKES Green grey, medium bedded, sericitic. 115.00-116.30 8403 sericitic 116.30-117.80 8404 sericitic 119.60-121.10 8405 quartz carbonate / sericitic alteration 123.50-125.00 8406 S2 crenulated quartz carbonate alteration</p>
125.00	132.40	<p>GREYWACKES Dark grey / light grey fine - medium grained sediments 130.90-132.40 8407 trace pyrite associated with quartz carbonate alteration</p>
132.40	134.00	<p>GREYWACKES Pale grey strongly silicified sediments. 132.40-134.00 8408 1% total pyrite as above</p>
134.00	145.50	<p>GREYWACKES, SILTSTONE/MUDSTONE Similar to above with a few argillitic bands.</p>

From	To	Geological Log
145.50	151.00	<p>GREYWACKES,SILTSTONE/MUDSTONE Medium grey strongly sicified. 145.50-146.50 8409 strong silicification 146.50-148.00 8410 strong silicification 148.00-149.50 8411 strong silicification 149.50-151.00 8412 strong silicification</p>
151.00	155.60	<p>GREYWACKES Typical banded sericite / ankerite altered sediments 151.00-152.50 8413 1% dirty blebby pyrite in 30cm below quartz carbonate vein in unit above + sericitic / quartz carbonate altered sediments 152.50-154.00 8414 6cm coddled ankerite vein + numerous quartz carbonate alteration zones 154.00-155.00 8415 6cm coddled ankerite vein + numerous quartz carbonate alteration zones 155.00-155.60 8416 6cm coddled ankerite vein + numerous quartz carbonate alteration zones</p>
155.60	180.50	<p>GREYWACKES,SILTSTONE/MUDSTONE Medium bedded locally argillitic. Fine - medium grained. 155.60-157.10 8417 1% dirty blebby pyrite over 40cm 160.60-162.10 8418 60cm silicified zone + trace pyrite in typical alteration 162.10-163.60 8419 10cm quartz carbonate network with sericite 163.60-165.10 8420 numerous silicified zones 165.10-166.00 4281 lam'd grey wacke 166.00-166.90 4282 laminated grey wacke 166.90-168.40 8421 30cm S2 contorted quartz carbonate vein / sericite network 168.40-169.90 4283 laminated grey wacke 175.10-176.60 8422 silicified</p>
180.50	182.40	<p>GREYWACKES QUARTZ VEIN ZONE Typical banded sericite / quartz carbonate alteration with a few larger quartz carbonate veins moderate sericite alteration throughout 180.50-181.50 8423 4 to 30cm veins. 181.50-182.40 8424 abundant irregular quartz carbonate alteration</p>
182.40	194.00	<p>GREYWACKES Silica replaced sediments 182.40-183.90 8425 grey silicification 183.90-185.40 8426 grey silicification 185.40-186.90 8427 grey silicification 186.90-188.40</p>

From	To	Geological Log
		8428 grey silicification 188.40-189.90 8429 grey silicification 189.90-191.40 8430 grey silicification 191.40-192.70 8431 grey silicification 192.70-194.00 8432 grey silicification
194.00	198.10	GREYWACKES,SILTSTONE/MUDSTONE Grey wacke with argillitic intervals. 194.00-195.50 8433 1% blebby pyrite in silicified argillite (30cm) 195.50-197.00 8434 1% blebby pyrite in silicified argillite (60cm) 197.00-198.10 8435 trace pyrite less silicified grey wacke
198.10	214.50	GREYWACKES Thick bedded coarse grained grey wacke. Minor fine grained intervals. Strongly silicified. 200.00-200.80 8436 2-3 centimeter irregular 200.80-202.30 8437 check sample silicified grey wacke 203.00-204.00 8438 very coarse grained 205.80-206.90 8439 15cm tourmaline bearing coddled ankerite quartz carbonate vein with sericitic (silicified) margins 206.90-208.40 8440 check sample 212.70-214.20 8441 check sample
214.50	220.10	GREYWACKES,SILTSTONE/MUDSTONE Medium bedded with significant argillitic componant. Intensely sheared. 218.60-220.10 8442 small shear zone + minor quartz carbonate alteration
220.10	234.10	GREYWACKES Variable pale green to green grey with pervasive alt. 220.10-221.60 8443 trace pyrite a few coddled ankerite quartz carbonate veinlets in sericitic / quartz carbonate alteration 221.60-223.10 8444 pale green strongly sericitized abundant quartz carbonate altered grey wacke with 3% dirty blebby pyrite fol'd 223.10-224.60 8445 pale green strongly sericitized abundant quartz carbonate altered grey wacke with 3% dirty blebby pyrite (foliated) 228.50-230.00 8446 a few grey veinlets 232.60-234.10 8447 end of interval sample
234.10	235.20	7 Typical very coarse grained quartz eye porphyry (50% quartz eyes) + large 234.10-235.20 8448 porphyry with trace pyrite

From	To	Geological Log
235.20	263.70	<p>GREYWACKES Same as (220.1-234.1 meter). 235.20-236.70 8449 trace seamy pyrite + minor grey coddled q ankerite veining 240.60-242.10 8450 60cm sericite / quartz carbonate zone 245.30-246.80 8451 1% dirty blebby pyrite in pale sericitic zone 248.30-249.50 8452 1% dirty blebby pyrite in pale sericitic zone 251.70-253.20 4284 thick bedded grey wacke with a few S0/1 // quartz carbonate vein <1cm trace dirty blebby pyrite 253.20-254.70 8453 2% dirty blebby pyrite in sericitic zone with a few coddled quartz carbonate veinlets 254.70-255.80 4285 thick bedded grey wacke with a few S0/1 // quartz carbonate vein <1cm trace dirty blebby pyrite 255.80-257.30 8454 3cm coddled quartz ankerite veinlet 257.30-258.80 4286 thick bedded grey wacke with a few S0/1 minor blching 258.80-260.30 4287 thick bedded grey wacke with a few S0/1 262.20-263.70 8455 check sample end of interval</p>
263.70	286.00	<p>GREYWACKES,SILTSTONE/MUDSTONE Locally laminated, fine - medium grained, medium bedded, minor argillite 281.40-282.90 8456 Mafic volcanics with 2cm ankeritic quartz carbonate veins 282.90-284.40 8457 2cm + 6cm ankeritic quartz carbonate vein 284.40-285.90 8458 12cm sericite zone with trace dirty blebby pyrite + a few ankeritic veinlets</p>
286.00	321.10	<p>GREYWACKES Variable green to grey/green. Medium bedded. 286.00-287.50 8459 4cm quartz carbonate vein + a few coddled ankerite veinlets 287.50-289.00 8460 banded sericite with a few grey 289.00-290.50 8461 12cm coddled quartz carbonate alteration zone banded sericite 296.50-298.00 8462 a few coddled quartz carbonate veinlets (check sample) 309.50-311.00 8463 5cm quartz carbonate vein + a few grey quartz carbonate veinlets 311.00-312.50 8464 2cm quartz carbonate vein (check sample) 312.50-314.00 8465 a few coddled & a few grey irregular quartz carbonate veins 314.00-315.50 8466 sericitic zone with two 2cm quartz carbonate veins 315.50-317.00 8467 sericitic zone with two 2cm quartz carbonate veins 317.00-318.50 8468 sericitic zone with two 2cm quartz carbonate veins</p>

From	To	Geological Log
321.10	329.00	GREYWACKES,SILTSTONE/MUDSTONE Mixed medium bedded sediments. Very fine argillitic bands. 321.10-322.60 8469 8cm coddled ankerite quartz carbonate vein + numerous quartz carbonate veinlets 327.50-329.00 8470 EOH sample (check)

*** END OF HOLE *** 329.00

HOLE NO: BKP-T-25	SECTION:	GRID:WAWAITAN
-------------------	----------	---------------

PROJECT CODE : BLACK PEARL MINERALS INC.
 TENEMENT : P871715
 PROSPECT : WAWAITIN
 GRID : WAWAITAN
 MAP REFERENCE:
 LOCATION : THORNELOE TWP
 HOLE TYPE : DDH

*** DRILLING SUMMARY ***

DDH	0.00 407.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	30/10/96
Date finished:	2/10/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

*** COLLAR COORDINATES AND RL ***

NOMINAL	0.00mN	0.00mE	285.00RL
---------	--------	--------	----------

Pre-collar depth: 407 Final depth: 407.00
 Purpose of hole:
 Hole status: COMPLETE
 Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	175.00	-60.00
50.00	184.50	-59.50
101.00	189.50	-59.00
150.00	193.50	-56.00
200.00	197.50	-55.00
250.00	198.00	-54.00
302.00	199.50	-53.00
350.00	202.50	-52.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	3.00	OVERBURDEN
3.00	17.80	MAFIC VOLCANICS UNDIFFERENTIATED
17.80	24.90	MAFIC VOLCANICS UNDIFFERENTIATED
24.90	48.40	MAFIC VOLCANICS UNDIFFERENTIATED
48.40	50.40	MAFIC VOLCANICS UNDIFFERENTIATED
50.40	97.50	MAFIC VOLCANICS UNDIFFERENTIATED FELSIC INTRUSIVES UNDIFFERENTIATED SEDIMENTS UNDIFFERENTIATED
97.50	98.50	MAFIC VOLCANICS UNDIFFERENTIATED
98.50	105.70	GREYWACKES
105.70	114.50	SILTSTONE/MUDSTONE, GREYWACKES
114.50	118.10	GREYWACKES

2-10-96



42A06SW2005 2.18336 THORNELOE 170

Checked and signed: <u> B.P.W. </u>	Date: <u> FEB 10 '98 </u>
---	---

HOLE NO: BKP-T-25

SECTION:

GRID:WAWAITAN

118.10	144.10	GREYWACKES, SILTSTONE/MUDSTONE
144.10	152.40	GREYWACKES
152.40	155.60	GREYWACKES
155.60	156.40	SILTSTONE/MUDSTONE, GREYWACKES
156.40	160.90	GREYWACKES
160.90	164.00	GREYWACKES
164.00	166.00	GREYWACKES
166.00	182.20	GREYWACKES
182.20	194.40	GREYWACKES
194.40	195.30	SILTSTONE/MUDSTONE
195.30	209.30	GREYWACKES
209.30	213.50	GREYWACKES
213.50	215.80	GREYWACKES
215.80	219.20	SILTSTONE/MUDSTONE, GREYWACKES
219.20	262.60	GREYWACKES
262.60	285.30	GREYWACKES, SILTSTONE/MUDSTONE
285.30	292.00	GREYWACKES
292.00	311.00	GREYWACKES
311.00	318.00	GREYWACKES
318.00	407.00	GREYWACKES, SILTSTONE/MUDSTONE
407.00		END OF HOLE

Checked and signed: _____ Date: _____

From	To	Geological Log
0.00	3.00	OVERBURDEN AS BKP-T-25 IS DRILLED AT A SIMILAR ORIENTATION TO & FROM THE SAME COLLAR LOCATION AS BKP-T-24
3.00	17.80	MAFIC VOLCANICS UNDIFFERENTIATED Green volcanics with minor quartz carbonate alteration
17.80	24.90	MAFIC VOLCANICS UNDIFFERENTIATED As above with abundant quartz carbonate alteration
24.90	48.40	MAFIC VOLCANICS UNDIFFERENTIATED As mafic volcanics above
48.40	50.40	MAFIC VOLCANICS UNDIFFERENTIATED Typical laminated mafic volcanics.
50.40	97.50	MAFIC VOLCANICS UNDIFFERENTIATED FELSIC INTRUSIVES UNDIFFERENTIATED SEDIMENTS UNDIFFERENTIATED UPPER ZONE 50.40-51.90 Greyish / green 51.90-53.70 Brecciated mauve / green 53.70-65.50 Orange / black / purple hematized magnetic porphyry 56.4-57.9 8471 black & orange to salmon felsic intrusive. 65.50-69.10 Minor mauve alteration in moderately - strongly altered chloritic volcs 69.10-70.80 Abundant bulbous mauve / chlorite alteration 70.80-73.70 Mauve alteration with minor chloritic volcs 4288 volc looking 73.70-74.70 Mauve alteration with quartz carbonate + pyrite 8472 mauve alteration 74.70-75.60 Pale green 8473 pale creamy green alteration with 1% seamy pyrite veinlets 75.60-77.70 Pink felsic intrusive 8474 magnetic black / orange felsic intrusive trace coarse pyrite 8475 magnetic black / orange felsic intrusive trace coarse pyrite 77.70-78.40 Creamy green + minor felsic intrusive with quartz carbonate veins 8476 pale creamy green zone with a few <2cm quartz carbonate veins 78.40-80.20 Mixed felsic intrusives 8477 salmon pink with 15cm S2 (?) quartz carbonate vein 8478 black 80.20-83.90 Creamy green ? 8479 pale green alteration 83.90-88.80 Creamy green + mauve two large quartz carbonate veins 8481 green granular sheared alteration (?) 2% localized seamy very coarse grained euhedral

From	To	Geological Log
		<p>pyrite 12cm foliation // quartz carbonate vein</p> <p>8482 mauve + green alteration minor quartz carbonate veining 5% coarse pyrite foliated nose ankeritic</p> <p>8483 mauve + green alteration minor quartz carbonate veining 5% coarse pyrite foliated nose</p> <p>8484 mauve + green alteration minor quartz carbonate veining 5% coarse pyrite foliated nose</p> <p>88.80-89.50 Very coarse grained white / black felsic intrusives</p> <p>89.50-92.40 Blackish felsic intrusive</p> <p>92.40-94.50 Pale salmon felsic intrusive</p> <p>94.50-97.00 Coarse grained black / white felsic intrusive</p> <p>96.5-97.5 8485 3% local pyrite</p> <p>97.00-97.50 Contact zone</p>
97.50	98.50	<p>MAFIC VOLCANICS UNDIFFERENTIATED</p> <p>Laminated chlorite / quartz carbonate alteration</p> <p>97.50-98.50 8486 trace pyrite approx. To chloritic</p>
98.50	105.70	<p>GREYWACKES</p> <p>Pale grey sediments (?) local sericite banding</p> <p>105.20-105.70 8487 3% dirty blebby pyrite over 1meter</p>
105.70	114.50	<p>SILTSTONE/MUDSTONE, GREYWACKES</p> <p>Black very fine grained argillite & grey wacke.</p>
114.50	118.10	<p>GREYWACKES</p> <p>Banded with sericitic quartz carbonate alteration.</p> <p>116.00-117.50 8488 banded sericite / quartz carbonate alteration 10cm S1 // quartz carbonate vein</p>
118.10	144.10	<p>GREYWACKES, SILTSTONE/MUDSTONE</p> <p>Minor local sicification. Pervasive ankerite</p> <p>119.90-121.40 8489</p>
144.10	152.40	<p>GREYWACKES</p> <p>Strongly silicified grey wacke (?)</p>
152.40	155.60	<p>GREYWACKES</p> <p>Banded sericite / quartz carbonate alteration</p> <p>152.40-153.40 8490 irregular</p>
155.60	156.40	<p>SILTSTONE/MUDSTONE, GREYWACKES</p> <p>Banded sericite quartz carbonate alteration.</p>
156.40	160.90	<p>GREYWACKES</p> <p>Grey silicified grey wacke</p>
160.90	164.00	<p>GREYWACKES</p> <p>Banded grey wacke (sericite) a few quartz carbonate veins</p> <p>162.50-164.00 8491 16cm coddled ankerite quartz carbonate vein in banded sericite alteration</p>
164.00	166.00	<p>GREYWACKES</p> <p>Strongly silicified</p>

From	To	Geological Log
166.00	182.20	<p>GREYWACKES</p> <p>Banded sericitic alteration</p> <p>166.00-167.60</p> <p>8492 as above</p> <p>167.60-169.10</p> <p>8493 a few pyritiferous quartz carbonate veins (coddled ankerite)</p> <p>173.80-175.30</p> <p>8494 patchy silicification</p> <p>179.20-180.70</p> <p>8495 a few mineralized quartz carbonate alteration patches</p> <p>180.70-182.20</p> <p>8496 a few min'd quartz carbonate alteration patches</p>
182.20	194.40	<p>GREYWACKES</p> <p>Hazy grey</p> <p>182.20-183.70</p> <p>8497 silicification</p> <p>183.70-185.20</p> <p>8498 silicification</p> <p>185.20-186.70</p> <p>8499 silicification</p> <p>186.70-188.20</p> <p>8500 silicification</p> <p>188.20-189.70</p> <p>8501 silicification</p> <p>189.70-191.20</p> <p>8502 silicification</p> <p>191.20-192.70</p> <p>8503 silicification</p> <p>192.70-193.70</p> <p>8504 silicification</p> <p>193.70-194.40</p> <p>8505 silicification</p>
194.40	195.30	<p>SILTSTONE/MUDSTONE</p> <p>Totally silicified</p> <p>194.40-195.30</p> <p>8506 silicification</p>
195.30	209.30	<p>GREYWACKES</p> <p>As grey wacke above</p> <p>195.30-196.80</p> <p>8507 trace blebby pyrite</p> <p>196.80-198.30</p> <p>8508 trace blebby pyrite</p> <p>198.30-199.80</p> <p>8509 1% pyrite</p> <p>199.80-201.30</p> <p>8510 1% very fine grained pyrite throughout in coarse grained grey wacke</p> <p>201.30-202.80</p> <p>8511 1% very fine grained pyrite throughout in coarse grained grey wacke</p> <p>202.80-204.30</p> <p>8512 1% very fine grained pyrite throughout in coarse grained grey wacke</p> <p>204.30-205.80</p> <p>8513 trace pyrite</p> <p>205.80-207.30</p> <p>8514 hazy silicification 2% very fine grained pyrite</p> <p>207.30-208.30</p> <p>8515 as above.</p> <p>208.30-209.30</p>

From	To	Geological Log
		8516 as above.
209.30	213.50	GREYWACKES Locally brecciated 209.30-210.80 8517 silicified breccia with quartz carbonate veins NNW quartz carbonate veins 210.80-212.00 8518 silicified breccia with quartz carbonate veins 212.00-213.50 8519 silicified breccia with quartz carbonate veins
213.50	215.80	GREYWACKES Pale grey
215.80	219.20	SILTSTONE/MUDSTONE, GREYWACKES Fine grained. S0,1 // fractured.
219.20	262.60	GREYWACKES Highly variably altered green - grey thick bedded fine - medium grained grey wacke ... Could be lower zone 219.20-220.00 8520 numerous quartz carbonate veins S1 // & NNW vertical trace - 1% associated blebby pyrite 220.00-221.00 8521 minor quartz carbonate alteration trace fine grained pyrite associated minor silicification 221.00-222.50 8522 abundant quartz carbonate alteration 222.50-224.00 8523 1% dirty blebby pyrite in sericitic alteration 224.00-225.50 8524 S2 crenulated silicified zone 225.50-227.00 8525 trace dirty blebby pyrite in moderate sericite alteration with minor quartz carbonate alteration locally 227.00-228.50 8526 NE side N motion along NNW quartz carbonate vein / fractured 228.50-230.00 8527 numerous NNW fractures / quartz carbonate zones 230.00-231.50 8528 numerous NNW fractures / quartz carbonate zones with motion (NE side N) 231.50-233.00 8529 numerous NNW fractures / quartz carbonate zones with motion (NE side N) 233.00-234.50 8530 numerous NNW fractures / quartz carbonate zones with motion (NE side N) 234.50-236.00 8531 numerous NNW fractures / quartz carbonate zones with motion (NE side N) 236.00-237.50 8532 numerous NNW fractures / quartz carbonate zones with motion (NE side N) 237.50-239.00 8533 numerous NNW fractures / quartz carbonate zones with motion (NE side N) 239.00-240.50 8534 2% coarse grained euhedral pyrite in coarse grained grey wacke 240.50-242.00 8535 minor S2 242.00-243.50 8536 1% very coarse grained euhedral pyrite 243.50-245.00 8537 1% fine grained pyrite associated with quartz carbonate alteration / sericitic alteration 245.00-246.50 8538 1% dirty blebby pyrite in sericitic alteration 246.50-248.00

From	To	Geological Log
		8539 small shear (S0/1 //) trace fuchsite alteration 248.00-249.50 4403 some quartz carbonate vein 249.50-250.90 4404 small alteration 250.90-252.30 8540 1% dirty blebby pyrite in weak sericitic alteration 252.30-253.80 8541 1% dirty blebby pyrite in weak sericitic alteration 253.80-255.00 8542 14cm coddled ankerite quartz carbonate vein + associated sericitic alteration 255.00-256.50 8543 40cm coddled ankerite quartz carbonate vein + associated sericitic alteration
262.60	285.30	GREYWACKES,SILTSTONE/MUDSTONE Medium bedded greywacke, afew argillitic beds.
285.30	292.00	GREYWACKES Green. Locally sericitized
292.00	311.00	GREYWACKES Centimeter bedded grey - dk grey grey wacke sediments 296.00-297.50 8544 mafic volcanics 1cm NNE 302.80-303.80 8545 6cm S dipping to S0/1 // quartz carbonate vein
311.00	318.00	GREYWACKES Sericitic / silicified / quartz vein zone with abundant coddled ankerite veinlets 311.00-312.50 8546 abundant grey coddled carbonate veinlet 312.50-314.00 8547 22 & 25 centimeter coddled quartz carbonate veins 314.00-315.00 8548 silicification & grey carbonate alteration 315.00-315.70 8549 50cm quartz carbonate vein (coddled) with sericitic margins 315.70-317.00 8550 abundant grey quartz carbonate alteration 317.00-318.00 8551 abundant grey quartz carbonate alteration + local silicification
318.00	407.00	GREYWACKES,SILTSTONE/MUDSTONE Grey medium bedded. Very fine argillitic sediments to medium grained grey wacke. 336.50-338.00 8552 patchy seru / silicification / quartz carbonate alteration (grey wacke) trace ars. 350.00-351.50 8553 argillite with patchy quartz carbonate alteration + a few coddled quartz carbonate veinlets 360.70-362.20 8554 trace blebby pyrite in silicification + numerous 366.70-369.20 8555 trace blebby pyrite in silicification + numerous 374.00-375.50 8556 three quartz carbonate zones 1-4cm trace 379.50-381.00 8557 numerous very fine flats core axis // stringer 387.40-388.90 8558 3cm quartz carbonate vein + numerous foliation // quartz carbonate stringers in argillite 389.90-391.40 8559 2cm S0 // quartz carbonate vein + irregular quartz carbonate veinlets 391.40-392.90

From	To	Geological Log
		8560 1% coarse blebby pyrite in argillitic grey wacke 392.90-394.40 8561 4 - 3cm quartz carbonate veins (coddled) trace carbonate pyrite in argillite 394.40-395.90 8562 16cm quartz carbonate vein minor tourmaline 395.90-397.40 8563 abundant quartz carbonate alteration 405.50-407.00 8564 coarse grained grey wacke EOH sample

*** END OF HOLE *** 407.00

HOLE NO: BKP-T-26	SECTION:	GRID:WAWAITAN
-------------------	----------	---------------

PROJECT CODE :BLACK PEARL MINERALS INC.
 TENEMENT :HS983
 PROSPECT :WAWAITIN
 GRID :WAWAITAN
 MAP REFERENCE:
 LOCATION :THORNELOE TWP
 HOLE TYPE :DDH

*** DRILLING SUMMARY ***

DDH	0.00	164.00	BQ
Drill contractor:	NOREX		
Drill rig:			
Date started:	3/11/96		
Date finished:	4/11/96		
Logged by:	BK POLK		
Relogged by:			
Sampled by:			

*** COLLAR COORDINATES AND RL ***

NOMINAL	350.00mN	-675.00mE	0.00RL
---------	----------	-----------	--------

Pre-collar depth: 164 Final depth: 164.00

Purpose of hole:

Hole status: COMPLETE

Comments: POLK GEOLOGICAL SERVICES

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	176.00	-45.00
50.00	180.25	-44.50
101.00	184.50	-44.00
152.00	187.50	-42.00
164.00	187.50	-42.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	6.00	OVERBURDEN
6.00	19.50	GREYWACKES
19.50	22.70	GREYWACKES OXIDIZED
22.70	38.50	GREYWACKES
38.50	41.00	GREYWACKES
41.00	45.50	GREYWACKES, SILTSTONE/MUDSTONE
45.50	52.50	GREYWACKES
52.50	54.80	GREYWACKES
54.80	55.40	FELSIC INTRUSIVES UNDIFFERENTIATED
55.40	62.00	GREYWACKES
62.00	63.50	GREYWACKES
63.50	71.90	GREYWACKES
71.90	77.00	GREYWACKES QUARTZ VEIN ZONE
77.00	113.00	GREYWACKES
113.00	122.50	SILTSTONE/MUDSTONE, GREYWACKES
122.50	135.20	GREYWACKES
135.20	147.80	GREYWACKES, SILTSTONE/MUDSTONE
147.80	164.00	GREYWACKES
164.00		END OF HOLE

2-10003



42A06SW2005 2.18336 THORNELOE 180

Checked and signed: <u> PAW </u>	Date: <u> FEB 13 '98 </u>
--	---

From	To	Geological Log
0.00	6.00	OVERBURDEN
6.00	19.50	GREYWACKES QUARTZ VEIN ZONE broad unit of grey wacke 9.70-11.20 8565 abundant S2 crenulations 11.20-12.70 8566 abundant S2 crenulations 12.70-14.00 8567 quartz carbonate alteration in moderate sericitic alteration 14.00-14.80 8568 a few 2-3cm quartz carbonate veinlets
19.50	22.70	GREYWACKES oxidized
22.70	38.50	GREYWACKES Alteration consists of sericitic associated with coddled quartz ankerite veining for the most part 24.50-26.00 8569 check sample 36.50-38.00 8570 12cm oxidized quartz carbonate vein in moderate sericite / quartz carbonate alteration
38.50	41.00	GREYWACKES Hazy white altered present in first 30m
41.00	45.50	GREYWACKES,SILTSTONE/MUDSTONE 42.50-44.00 8571 check sample minor quartz carbonate alteration in grey wacke
45.50	52.50	GREYWACKES A few irregular grey quartz carbonate veinlets
52.50	54.80	GREYWACKES Pervasive weak - moderate ankeritic alteration in grey wacke strong ankeritic component in quartz carbonate veins well developed S0/1 @ 60-65 degrees to core axis S2 locally developed as centimeter-decimeter crenulation 53.40-54.80 8572 minor quartz carbonate alteration in grey wacke
54.80	55.40	FELSIC INTRUSIVES UNDIFFERENTIATED Pale grey felsic intrusive with 40% 1-3 millimeter diffuse feldspar clots + a few hazy quartz carbonate veins 54.80-55.40 8573 porphyry with trace very fine grained disseminated pyrite
55.40	62.00	GREYWACKES Pale grey 60.50-62.00 8574 abundant irregular quartz carbonate alteration with associated sericite enveloping trace -1% locally
62.00	63.50	GREYWACKES Locally (pale green sericitic) ... Weakly or strong generally 62.00-63.50 8575 strongly sericitized grey wacke coarse grained euhedral pyrite with chloritic shadows
63.50	71.90	GREYWACKES Weak pervasive sericitic alteration with a few dark grey veinlets 70.60-71.90 8576 numerous quartz carbonate veinlets // to NW foliation & S2
71.90	77.00	GREYWACKES QUARTZ VEIN ZONE Moderate banded sericite / quartz carbonate alteration with several large coddled ankerite quartz carbonate veins typical banded sericite / quartz carbonate alteration S1/0 @ 65 degrees to core axis locally well developed NW foliation

From	To	Geological Log
		71.90-72.70 8577 10cm / 24cm coddled quartz ankerite vein 72.70-74.20 8578 a few coddled veinlets + minor irregular quartz carbonate alteration 74.20-75.70 8579 a few coddled veinlets + minor irregular quartz carbonate alteration up hole 75.70-77.00 8580 a few coddled veinlets + minor irregular quartz carbonate alteration 8cm vein
77.00	113.00	GREYWACKES Weak to strong altered sediments 77.00-78.50 8581 fracture zone a few quartz carbonate veinlets 78.50-80.00 8582 fracture zone a few quartz carbonate veinlets 84.30-85.80 4290 BS above 8583 85.80-87.30 8583 check sample 87.30-88.80 4291 BS below 8583 92.00-93.50 4292 minor sericitic / quartz carbonate alteration trace 93.50-95.00 4293 minor sericitic / quartz carbonate alteration trace 100.70-102.20 4294 locally abundant irregular quartz carbonate alteration 102.20-103.70 4295 BS above 8584 103.70-105.10 8584 check sample quartz carbonate / sericite alteration 105.10-106.60 4296 BS below 8584 108.60-110.10 8585 abundant grey 110.10-111.60 4297 abundant irregular grey quartz carbonate veinlets 111.60-113.00 4298 abundant irregular grey quartz carbonate veinlets
113.00	122.50	SILTSTONE/MUDSTONE, GREYWACKES 113.00-114.50 8586 locally moderately altered grey wacke 114.50-116.00 4299 abundant irregular grey quartz carbonate veinlets 116.00-117.60 4300 infill sample minor quartz carbonate alteration 117.60-119.10 4301 minor quartz carbonate alteration BS above 8587 119.10-120.60 8587 abundant qc/ser alteration 120.60-122.10 8588 abundant qc/ser alteration
122.50	135.20	GREYWACKES Pale grey
135.20	147.80	GREYWACKES, SILTSTONE/MUDSTONE 137.70-139.20 8589 moderate sericite / quartz carbonate alteration 146.30-147.80

From	To	Geological Log
		8590 grey wacke
147.80	164.00	GREYWACKES Sericite altered 151.40-152.90 8591 minor sericite / quartz carbonate alteration 162.50-164.00 8592 EOH sample

*** END OF HOLE *** 164.00

HOLE NO: BKP-T-27 SECTION: GRID: WAWAITAN

PROJECT CODE : BLACK PEARL MINERALS INC.
 TENEMENT : HS987
 PROSPECT : WAWAITAN
 GRID : WAWAITAN
 MAP REFERENCE:
 LOCATION : THORNELOE TWP
 HOLE TYPE : DDH

*** DRILLING SUMMARY ***

DDH	0.00 149.00 BQ
Drill contractor:	NOREX
Drill rig:	
Date started:	5/11/96
Date finished:	13/11/96
Logged by:	BK POLK
Relogged by:	
Sampled by:	

Material left in hole:
 Base of complete oxidation:
 Top of fresh rock:
 Water first encountered:
 Water inflow estimate:

*** COLLAR COORDINATES AND RL ***

NOMINAL	379.30mN	-700.00mE	305.00RL
---------	----------	-----------	----------

Pre-collar depth: 149 Final depth: 149.00
 Purpose of hole:
 Hole status: COMPLETE
 Comments: POLK GEOLOGICAL SERVICES

*** SURVEY DATA ***

Survey Method: SPERRY SUN

Depth	Azimuth	Inclination
0.00	176.00	-45.00
119.00	184.50	-43.00
136.50	186.00	-42.00
149.00	186.00	-42.00

*** SIGNIFICANT ASSAYS ***

From	To	Width

*** SUMMARY LOG ***

0.00	6.00	OVERBURDEN
6.00	11.40	GREYWACKES, SILTSTONE/MUDSTONE
11.40	11.60	FELSIC INTRUSIVES UNDIFFERENTIATED
11.60	23.00	GREYWACKES
23.00	24.60	GREYWACKES, SILTSTONE/MUDSTONE
24.60	32.00	GREYWACKES
32.00	34.20	GREYWACKES, SILTSTONE/MUDSTONE
34.20	68.10	GREYWACKES
68.10	70.20	GREYWACKES, SILTSTONE/MUDSTONE
70.20	81.90	GREYWACKES
81.90	83.40	GREYWACKES
83.40	131.70	GREYWACKES
131.70	136.50	GREYWACKES, SILTSTONE/MUDSTONE
136.50	149.00	GREYWACKES
149.00		END OF HOLE



42A06SW2005

2.18336

THORNELOE

190

Checked and signed: B.K.P.

Date: FEB 18 '98

From	To	Geological Log
0.00	6.00	OVERBURDEN
6.00	11.40	GREYWACKES,SILTSTONE/MUDSTONE Thinly bedded, variably grey, strongly altered. 9.90-11.40 8593 trace blebby pyrite + minor quartz carbonate alteration / oxidized
11.40	11.60	FELSIC INTRUSIVES UNDIFFERENTIATED Thin pale grey coarse grained 11.40-12.90 8594 trace pyrite in felsic volcanics and grey wacke below + fracture zone
11.60	23.00	GREYWACKES Thicker bedded grey wacke than above ; pale grey green colour ; approx. Equal to alteration suite ; 1st meter is grey wacke (banded sericite / quartz carbonate) ; minor laminations near end of interval. Alteration as above ; 1st meter is moderately altered. Moderately developed S0/1 @ 60 degrees to core axis a few S 45 dipping EW quartz carbonate veins a few S2 flat
23.00	24.60	GREYWACKES,SILTSTONE/MUDSTONE As above with minor argillite.
24.60	32.00	GREYWACKES Centimeter to decimeter bedded
32.00	34.20	GREYWACKES,SILTSTONE/MUDSTONE As above with very fine grained component.
34.20	68.10	GREYWACKES Similar grey wacke to those above 36.30-37.80 8595 check sample minor moderate alteration (quartz carbonate / sericite / coddled quartz carbonate veinlets) 61.80-63.30 8596 moderate alteration 63.30-64.80 8597 moderate
68.10	70.20	GREYWACKES,SILTSTONE/MUDSTONE As above.
70.20	81.90	GREYWACKES Pale green / grey 76.50-77.20 8598 4cm zone of 4% very fine grained disseminated pyrite near frac zone 80.40-81.90 8599 BS approx. To grey wacke below
81.90	83.40	GREYWACKES Correlatable pale green sericitic unit. Strong sericitic alteration throughout 81.90-83.40 8600 as above
83.40	131.70	GREYWACKES Moderately altered sediments described above (70.2-81.9m) waning alteration near end of interval. NNW vertical fracture @ 128.3 meters 83.40-84.90 8601 BS around grey wacke above 90.50-92.00 8602 abundant quartz carbonate alteration with banded sericite 92.00-93.50 8603 abundant quartz carbonate alteration with banded sericite 93.50-95.00

From	To	Geological Log
		8604 22 centimeter coddled ankerite vein 95.00-96.50 8605 three centimeter vein + numerous veinlets & diffuse alteration 96.50-98.00 4302 minor - abundant coddled quartz carbonate alteration (BS below 8605) 98.00-99.50 4303 minor - abundant coddled quartz carbonate alteration 99.50-101.00 4304 minor - abundant coddled quartz carbonate alteration 101.00-102.50 4305 minor - abundant coddled quartz carbonate alteration 102.50-104.00 4306 minor - abundant coddled quartz carbonate alteration 104.00-105.50 8606 trace pyrite associated with numerous coddled ankerite veinlets 110.00-111.50 8607 trace pyrite associated with numerous coddled ankerite veinlets 111.50-113.00 8608 a few veinlets 113.00-114.30 8609 a few coddled ankerite veinlets + minor diffuse quartz carbonate alteration 114.30-115.00 8610 12cm coddled quartz carbonate vein with .5% fine grained arsenopyrite located in a band below vein + abundant irregular quartz carbonate alteration 115.00-116.50 8611 abundant irregular quartz carbonate alteration in first .7m 116.50-118.00 8612 1% coarse blebby pyrite in strong chloritic / sericitic alteration with a few quartz carbonate veinlets 118.00-119.50 8613 3cm veinlet + locally abundant quartz carbonate alteration in same 119.50-121.00 8614 a few veinlets 121.00-122.50 8615 a few veinlets 122.50-124.00 8616 8cm irregular coddled quartz carbonate vein 124.00-125.50 8617 numerous
131.70	136.50	GREYWACKES, SILTSTONE/MUDSTONE Centimeter bedded with 20% very fine grained. 134.50-136.00 8618 minor quartz carbonate alteration with trace pyrite
136.50	149.00	GREYWACKES Laminated 140.00-141.50 8619 a few patches of moderate alteration (sericite / quartz carbonate) 146.00-147.50 8620 a few patches of moderate alteration (sericite / quartz carbonate) 147.50-149.00 8621 EOH sample as above

*** END OF HOLE *** 149.00



Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Transaction Number (office use) <i>W9860-00228</i>
Assessment Files Research Imaging

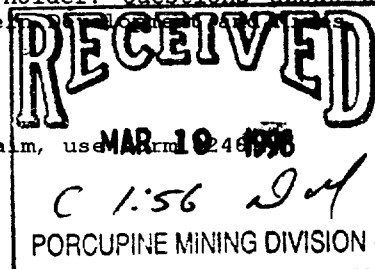


42A06SW2005 2.18336 THORNELOE

900

65(2) and 66(3), R.S.O. 1990

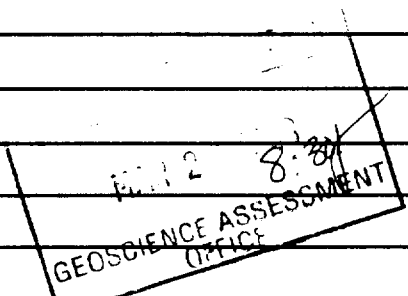
Personal information collected on this form is obtained under the authority of subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.



Instructions: - For work performed on Crown Lands before recording a claim, use Form 246
 - Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

Name See Attached List and Agreement	Client Number
Address	Telephone Number
	Fax Number
Name	Client Number
Address	Telephone Number
	Fax Number



2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

- Geotechnical: prospecting, surveys, assays and work under section 18 (regs) Physical: drilling stripping, trenching and associated assays Rehabilitation

Work Type	Office Use
	Commodity
	Total \$ Value of Work Claimed <i>220,124</i>
Dates Work Performed From: Day 19, Month 08, Year 1996 To: Day 13, Month 11, Year 1996	NTS Reference
Global Positioning System Data (if available)	Township/Area Thorneloe
	Mining Division <i>Porcupine</i>
M or G-Plan Number G-3229	Resident Geologist District <i>Torrance</i>

- Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
 - provide proper notice to surface rights holders before starting work;
 - complete and attach a Statement of Costs, form 0212;
 - provide a map showing contiguous mining lands that are linked for assigning work;
 - include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name Peter G. Atherton	Telephone Number 1-705-235-4959
Address P.O. Box, 372, Porcupine, Ontario, P0N 1C0	Fax Number 1-705-235-5094
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

4. Certification by Recorded Holder or Agent

Deemed June 08/98

I, Peter G. Atherton, do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent <i>Peter G. Atherton</i>		Date MARCH 17, 1998
Agent's Address P.O. Box 372, Porcupine, Ontario, P0N 1C0	Telephone Number 1-705-235-4959 (office)	Fax Number 1-705-235-5094

1-705-235-5846 (home)

0241 (06/97)

RECEIVED
MAR 20 1998
8:34
GEOSCIENCE ASSESSMENT
OFFICE

OWNERSHIP LIST FOR THORNELOE CLAIM GROUP

1) Comaplex Minerals Corp Telephone - 403-265-2846
901 - 1015 4 st SW Fax - 403-232-1421
Calgary, Alberta
T2R LT4

Client # 302304 /

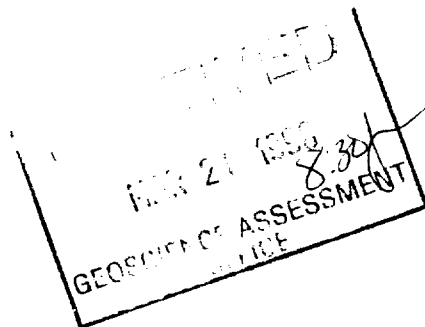
2) Jean - Claude Bonhomme Telephone - 416-366-2098
95 Wellington St. W Fax - 416-863-4943
Suite 1800,
Toronto, Ontario
M5J 2N7

Client # 109770 /

3) D. R. Pyke & Associates Inc. Telephone - 905-731-1913
31 Delair Crescent,
Thornhill, Ontario,
L3T 2M3

Client # 301519 /

For ownership of patented claims see attached agreements.





Schedule for Declaration of Assessment Work on Mining Land

FINAL REVISION
Transaction Number (office use)
W986.00228

AMENDMENTS AS REQUESTED & DISCUSSED
MARCH 23/98 PBA & MARCH 24/98 PBA

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
HS 983	9.8 ha	40,000	NA	40,000	40,000
HS 983 } PARCEL	9.8 ha	\$40,792	NA	\$4,800	\$35,992
HS 984 } LIBS	11.5 ha	14,902	NA	8,400	6,502
HS 987 } PBA	20.8 ha	\$26,676	NA	\$3,200	\$23,476
P 871712	1		\$400		
P 871713	1		\$400		
P 871714	1		\$400		
P 871715	1	\$41,356	\$400		\$40,956
P 933333	1		\$1,200		
P 933334	1		\$1,200		
P 946108	1		\$1,200		
P 946109	1		\$1,200		
P 946110	1		\$1,200		
P 946111	1		\$1,200		
P 946112	1		\$1,200		
P 946113	1		\$1,200		
P 946114	1		\$1,200		
P 946115	1		\$1,200		
1189258	2	\$8,484	\$1,600		\$6,884
1204118	3	\$4,757	\$2,400		\$2,357
1204119	2	\$40,005	\$1,600		\$38,405
1211136	1	\$16,092	\$1,600		\$14,492
1211137	1		\$1,600		
1211138	1		\$1,600		
1211139	2	\$27,060	\$2,400		\$24,660
Column Totals		\$220,124	\$26,400	\$16,400	\$193,724

RECEIVED
MAR 24 1998
GEOSCIENCE ASSESSMENT OFFICE

Column Totals		\$220,124	\$26,400	\$16,400	\$193,724



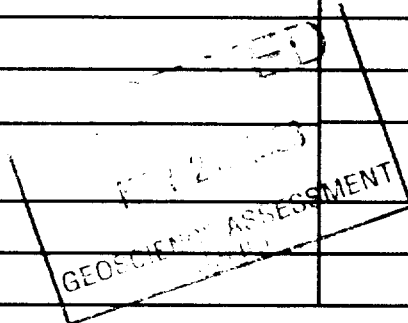
Statement of Costs for Assessment Credit

Transaction Number (office use)

W960.00228

Personal information collected on this form is obtained under the authority of subsection 6 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
Diamond Drilling	5287 Meters	\$41.64	\$220,124
Associated Costs (e.g. supplies, mobilization and demobilization).			
Transportation Costs			
Food and Lodging Costs			
Total Value of Assessment Work			\$220,124



Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK x 0.50 = Total \$ value of worked claimed.

Note:
 - Work older than 5 years is not eligible for credit.
 - A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, Peter G. Atherton, do hereby certify, that the amounts shown are as accurate as may reasonably (please print full name) be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying

Declaration of Work form as SENIOR GEOLOGIST I am authorized to make this certification.
 (recorded holder, agent, or state company position with signing authority)

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9846
Fax: (705) 670-5881

June 12, 1998

Peter G. Atherton
BLACK PEARL MINERALS INC.
804-121 RICHMOND ST. WEST
TORONTO, ONTARIO
M5H-2K1

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Dear Sir or Madam:

Submission Number: 2.18336

Status

Subject: Transaction Number(s): W9860.00228 Deemed Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Lucille Jerome by e-mail at jeromel2@epo.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,



ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Work Report Assessment Results

Submission Number: 2.18336

Date Correspondence Sent: June 12, 1998

Assessor: Lucille Jerome

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9860.00228	871715	THORNELOE	Deemed Approval	June 08, 1998

Section:
16 Drilling PDRILL

Correspondence to:

Resident Geologist
South Porcupine, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

Peter G. Atherton
BLACK PEARL MINERALS INC.
TORONTO, ONTARIO

COMAPLEX MINERALS CORP.
CALGARY, ALBERTA

JEAN-CLAUDE BONHOMME
TORONTO, ONTARIO

D.R. PYKE & ASSOCIATES INC.
THORNHILL, ONTARIO

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

- M.R.O. - MINING RIGHTS ONLY
- S.R.O. SURFACE RIGHTS ONLY
- M.+S. MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
S.F.O. 4770		17/5/72	S.R.O.	164544

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

SAND AND GRAVEL

①	GRAVEL	FILE: 163434
②	M.N.R. GRAVEL RESERVE	
③	M.N.R. GRAVEL PIT 254	FILE: 11637

- ① THIS TWP. SUBJECT TO FOREST ACTIVITIES IN 1994/95. FURTHER INFO AVAILABLE ON FILE.
- ② THIS TWP. SUBJECT TO FOREST ACTIVITY IN 1995-96. FURTHER INFORMATION AVAILABLE ON FILE.

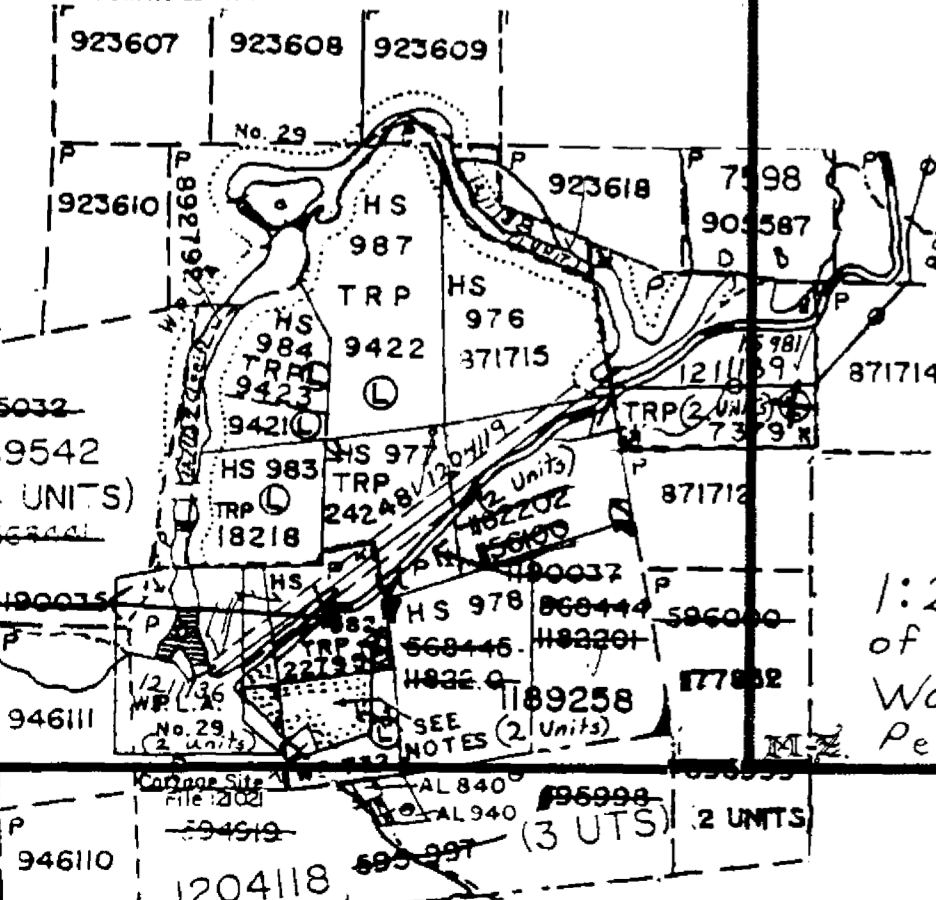
NOTES

Reservation for Deputy Chief Ranger's Headquarters site shown thus File: 110657

Flooding Rights on Kenogamissi Lk. & Mattagami R. are reserved to Ont. Hydro — L.O. 7598. File: 1163 vol. 3

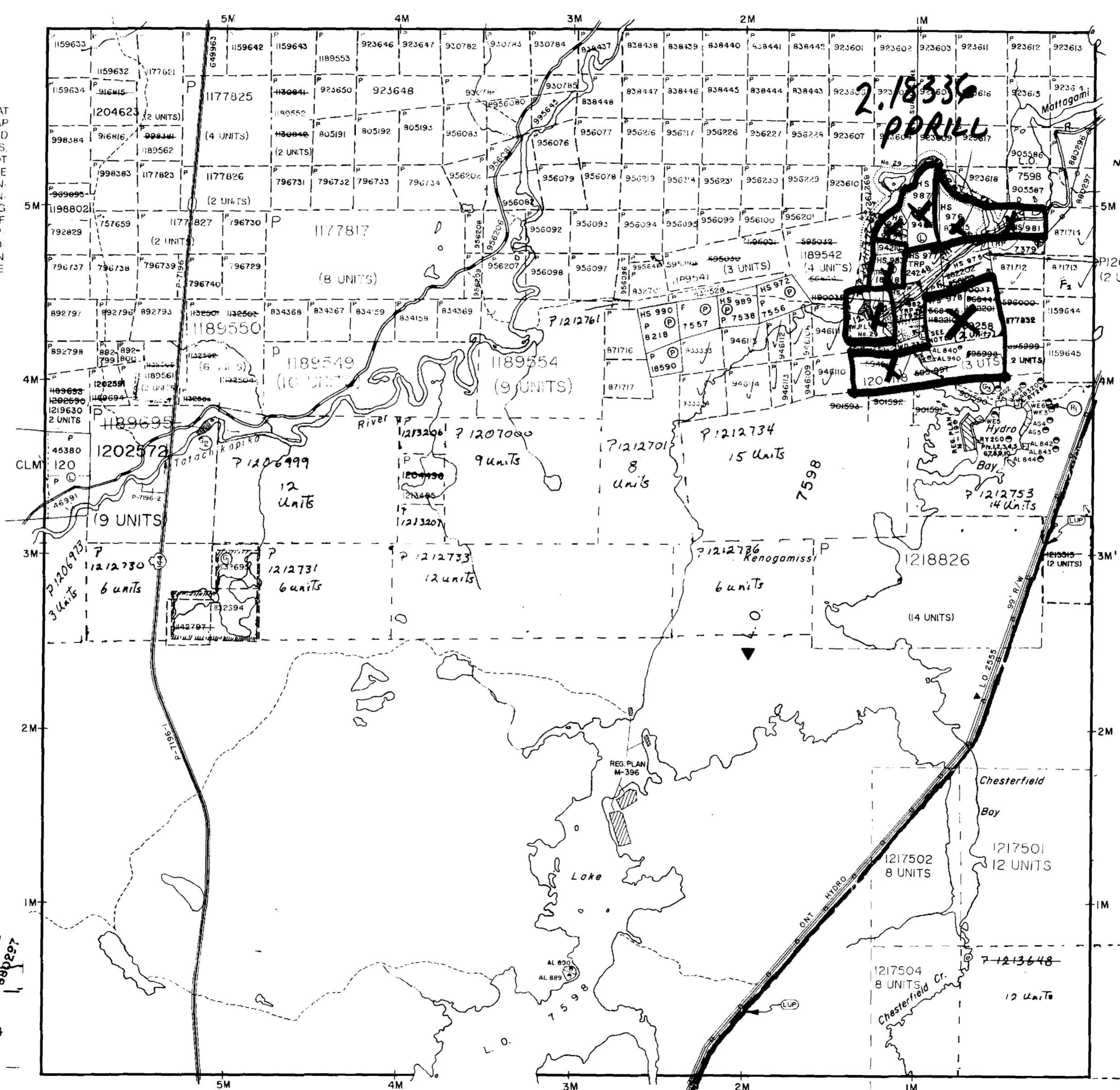
THIS TOWNSHIP IS PART OF THE MUNICIPALITY OF THE CITY OF THORNELOE

LUP APPLICATION PENDING UNDER PUBLIC LANDS ACT NOTICE RECEIVED 93-MAR-30 (SNOWMOBILE TRAIL)



1:20,000 Plot of Area Around Warwaitin Falls (Dam) and Penstock.

Bristol Twp.



Note: See insert in lower left-hand corner for more detail around the dam and penstock area.

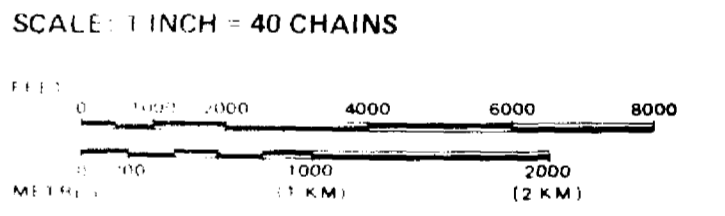
LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAIL
- SURVEYED LINES
- TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

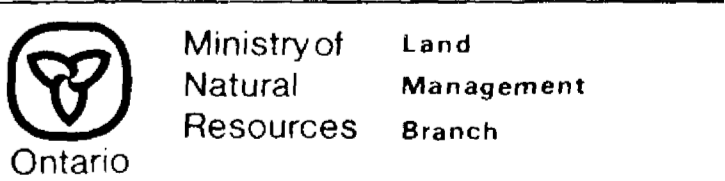
DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	
SURFACE RIGHTS ONLY	
MINING RIGHTS ONLY	
LEASE SURFACE & MINING RIGHTS	
SURFACE RIGHTS ONLY	
MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER IN COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

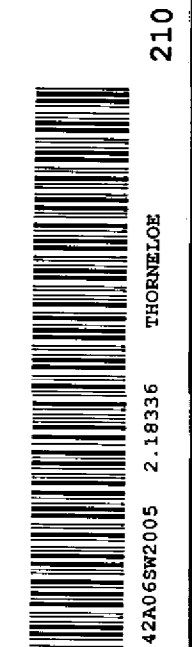
NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.



TOWNSHIP
THORNELOE
 M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS DATE OF ISSUE
 MINING DIVISION MAR 20 1998
 PORCUPINE PROVINCIAL RECORDING OFFICE - SUDBURY
 LAND TITLES / REGISTRY DIVISION
COCHRANE

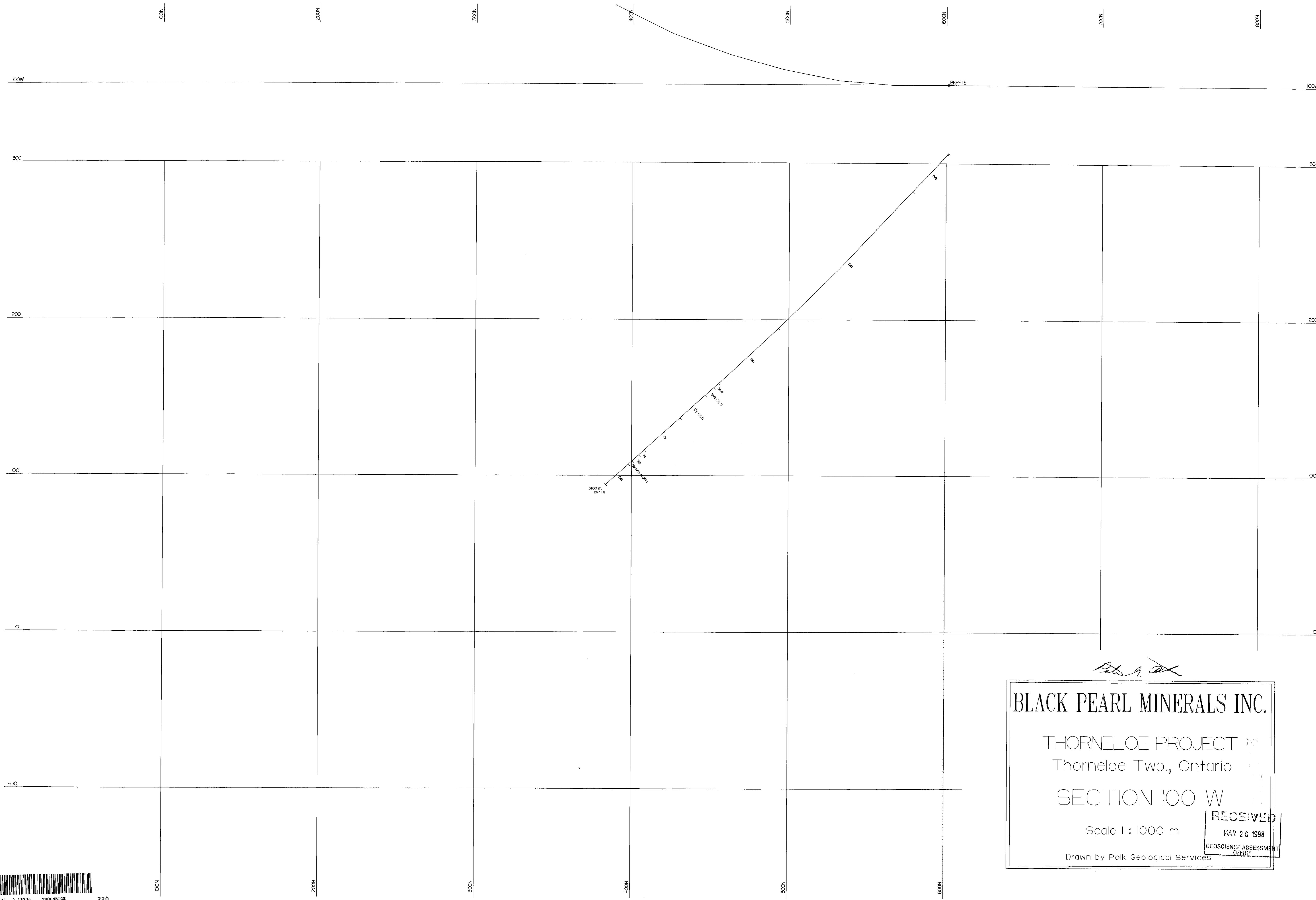


Date MARCH 1985 Number
 ACTIVATED JULY 3, 1992 By J.C.
 CHECKED BY G.R.W. **G-3229**



210

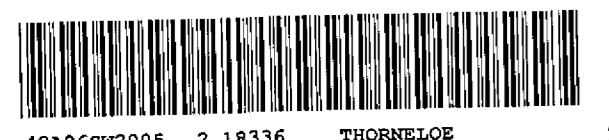




Polk G. Services

BLACK PEARL MINERALS INC.
 THORNELOE PROJECT
 Thorneloe Twp., Ontario
SECTION 100 W
 Scale 1 : 1000 m
 Drawn by Polk Geological Services

RECEIVED
 MAR 26 1998
 GEOSCIENCE ASSESSMENT
 OFFICE



4005

3005

2005

1005

0N

100N

200N

300N

200W 200W

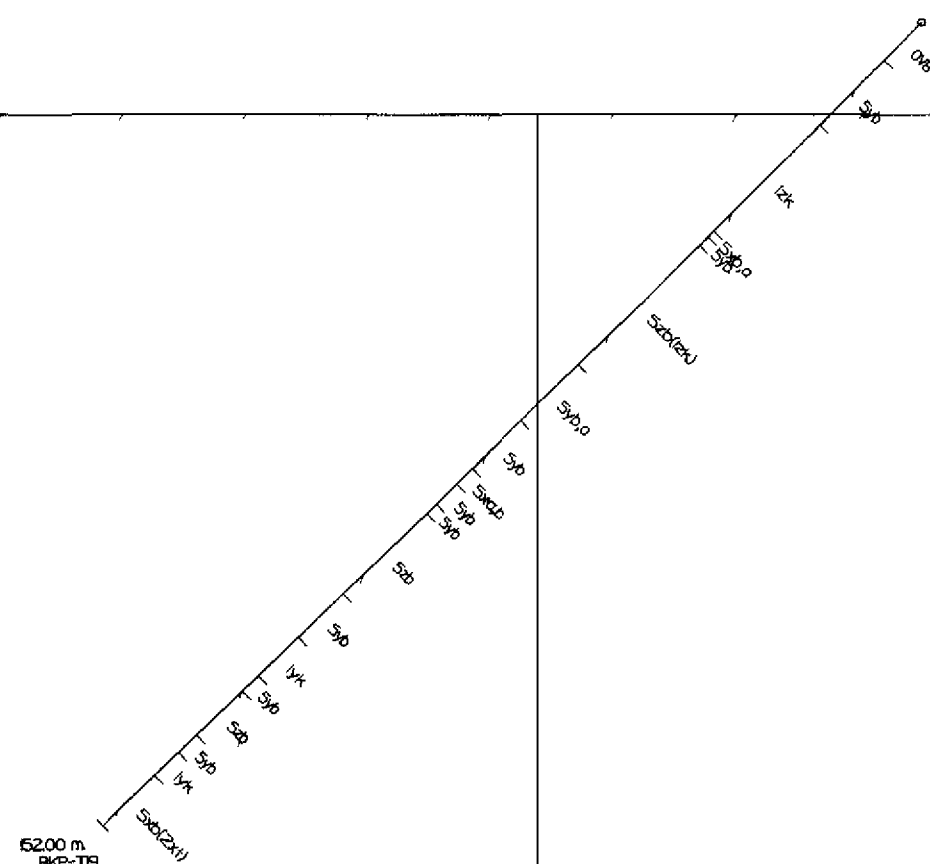
300 300

200 200

100 100

0 0

-100 -100



Pat. H. 1000

BLACK PEARL MINERALS INC.

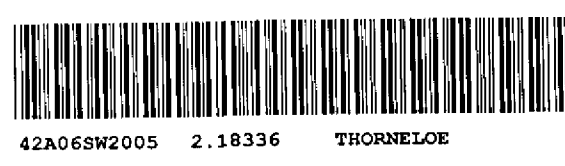
THORNELOE PROJECT
 Thorneloe Twp., Ontario

SECTION 200 W

Scale 1 : 1000 m

Drawn by Polk Geological Services

RECEIVED
 MAR 20 1998
 GEOSCIENCE ASSESSMENT
 OFFICE



230

4005

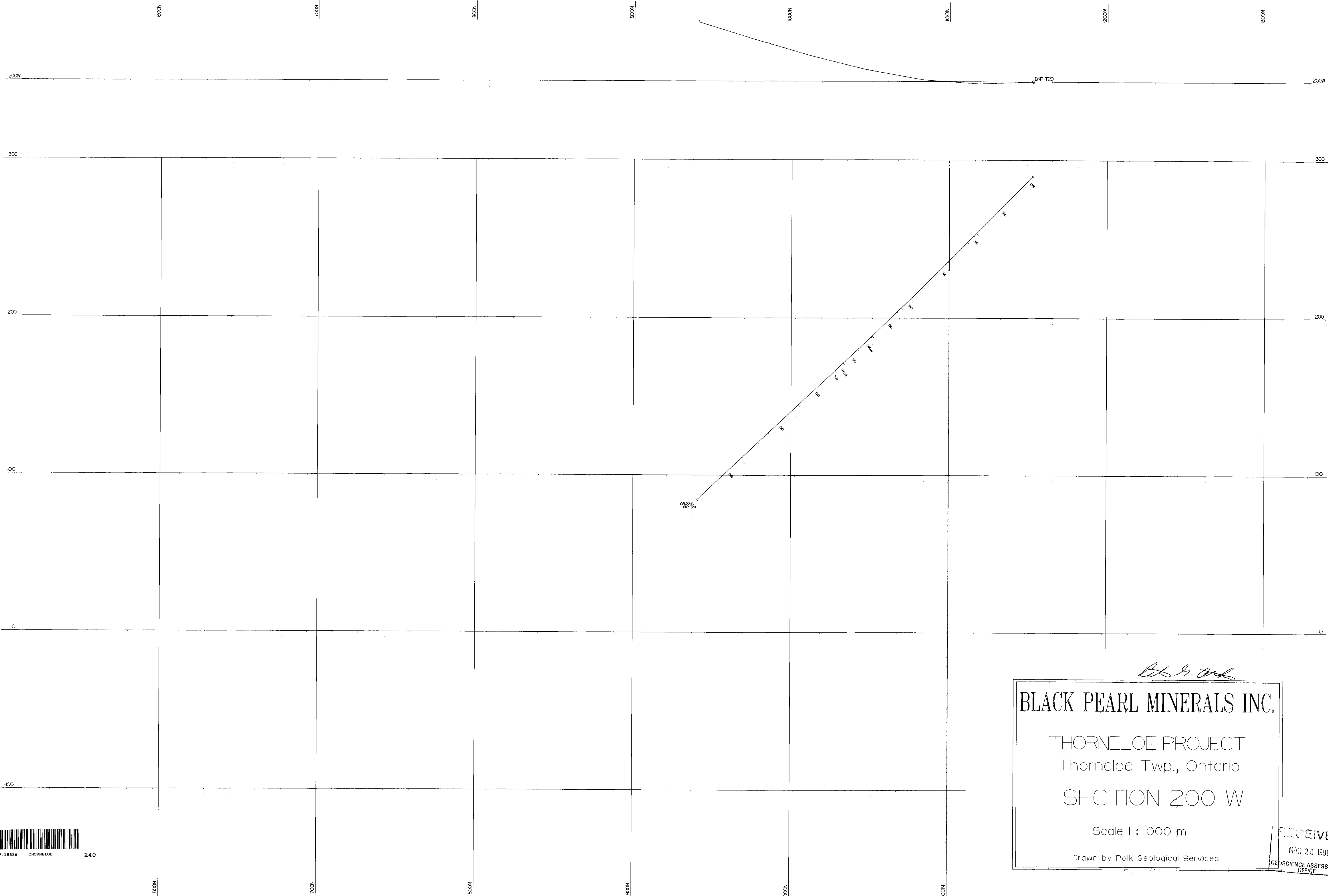
3005

2005

1005

0N

100N



Handwritten signature

BLACK PEARL MINERALS INC.
 THORNELOE PROJECT
 Thorneloe Twp., Ontario
SECTION 200 W
 Scale 1 : 1000 m
 Drawn by Polk Geological Services

RECEIVED
 MAR 20 1998
 GEOSCIENCE ASSESSMENT
 OFFICE

4005

3005

2005

1005

0N

100N

200N

300N

300W 300W

300 300

200 200

100 100

0 0

-100 -100

4005

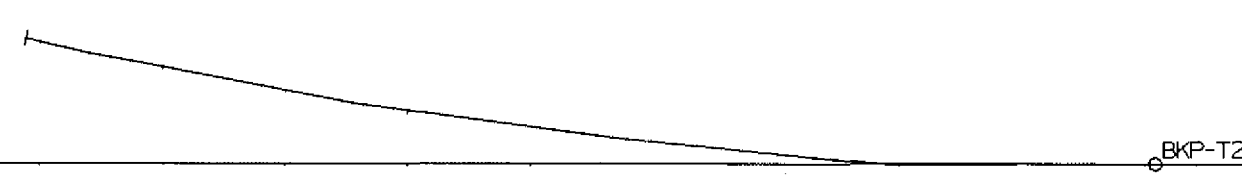
3005

2005

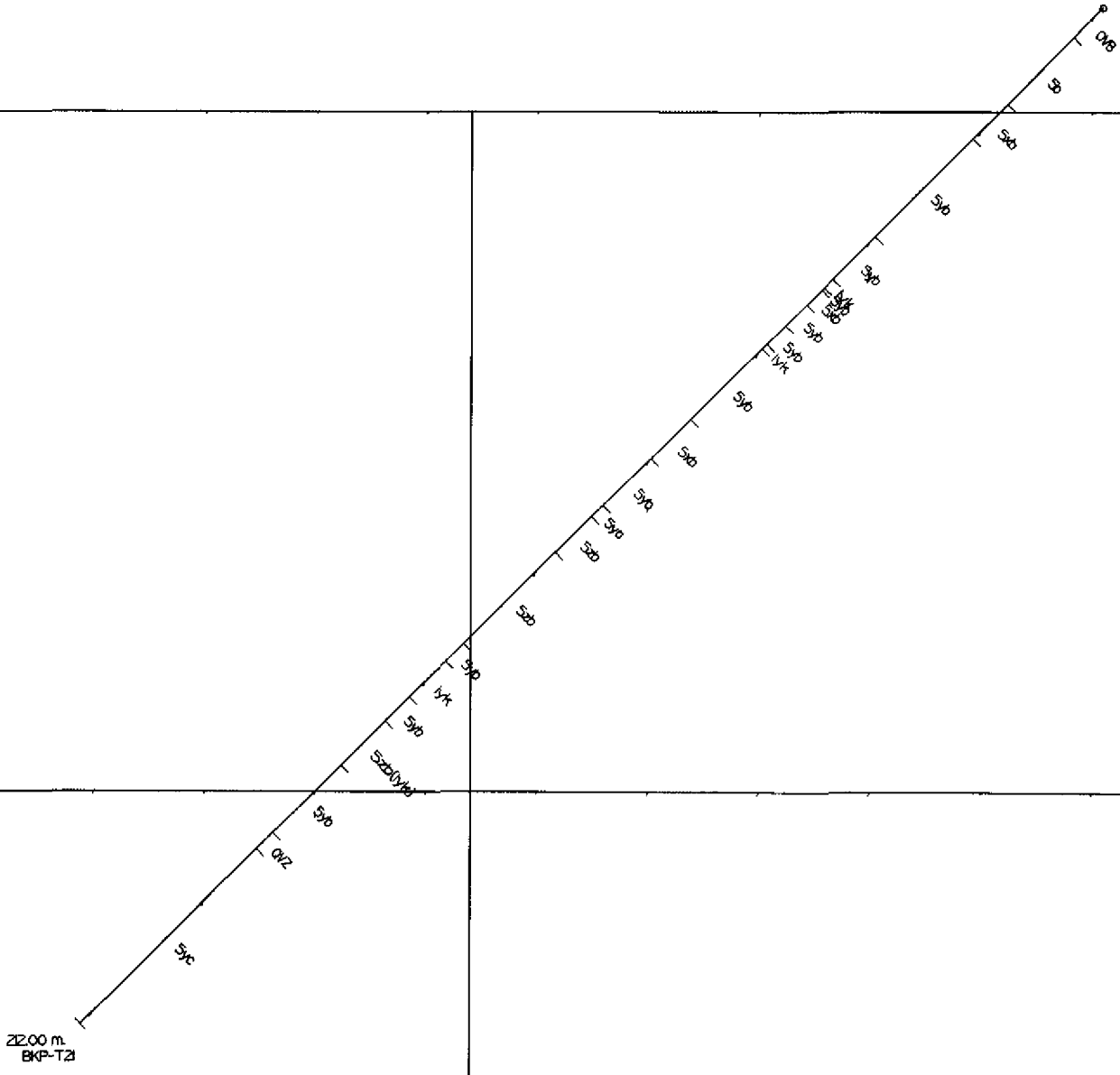
1005

0N

100N



BKP-T2



John G. Polk

BLACK PEARL MINERALS INC.

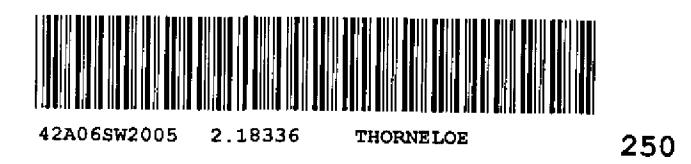
THORNELOE PROJECT
Thorneloe Twp., Ontario

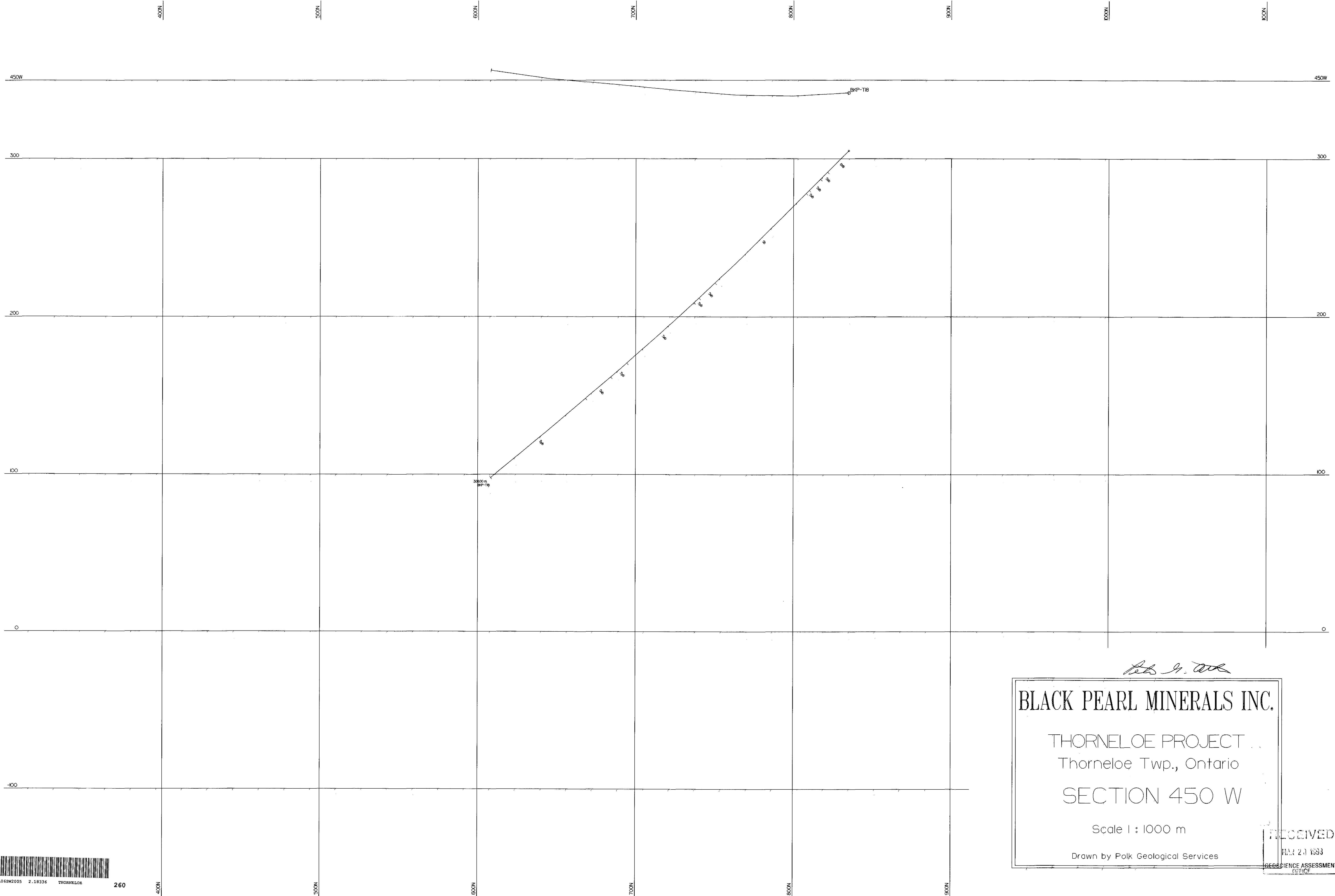
SECTION 300 W

Scale 1 : 1000 m

Drawn by Polk Geological Services

RECEIVED
MAR 20 1998
GEOSCIENCE ASSESSMENT
OFFICE

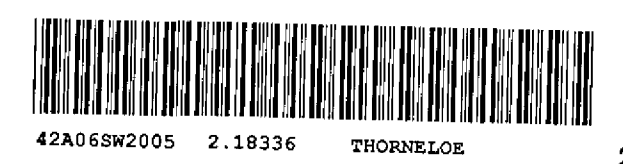


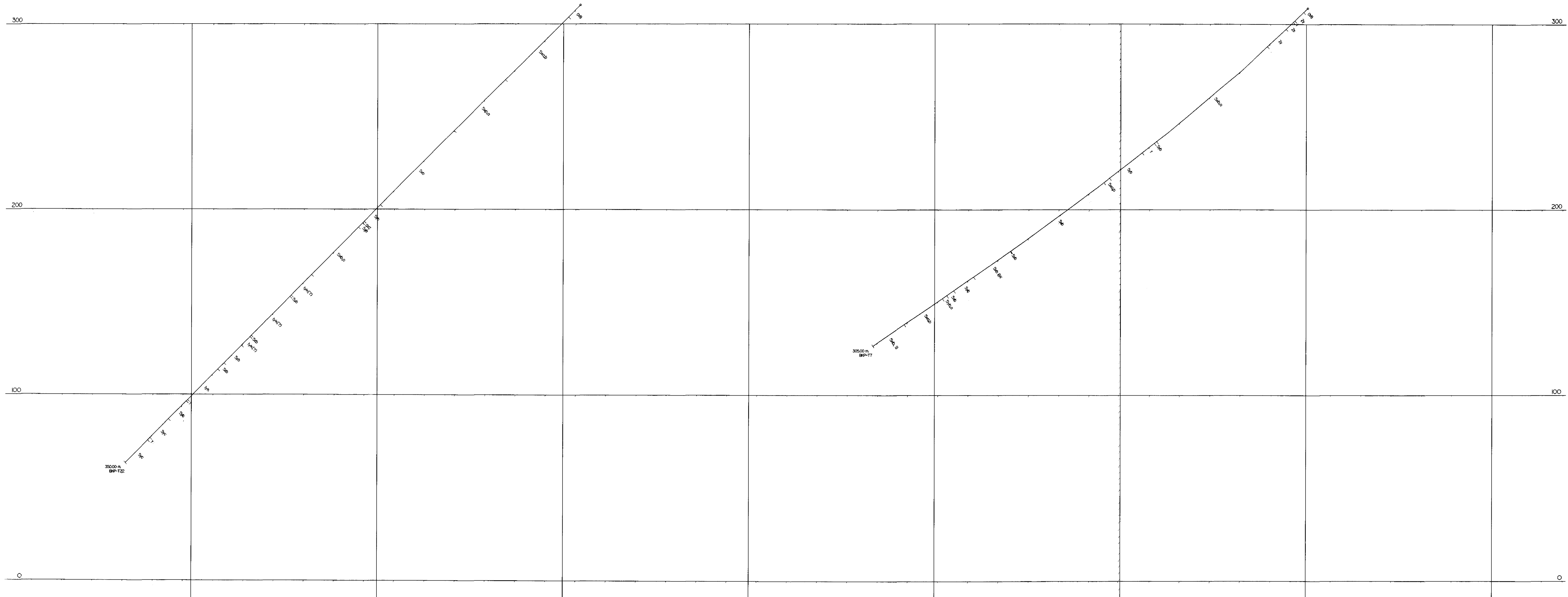
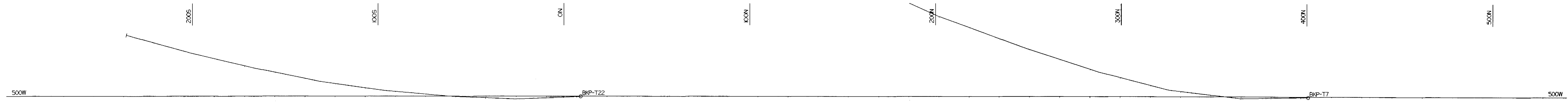


Feb 9, 2008

BLACK PEARL MINERALS INC.
 THORNELOE PROJECT
 Thorneloe Twp., Ontario
 SECTION 450 W
 Scale 1 : 1000 m
 Drawn by Polk Geological Services

RECEIVED
 MAR 20 1993
 GEOLOGICAL ASSESSMENT
 OFFICE





Polk

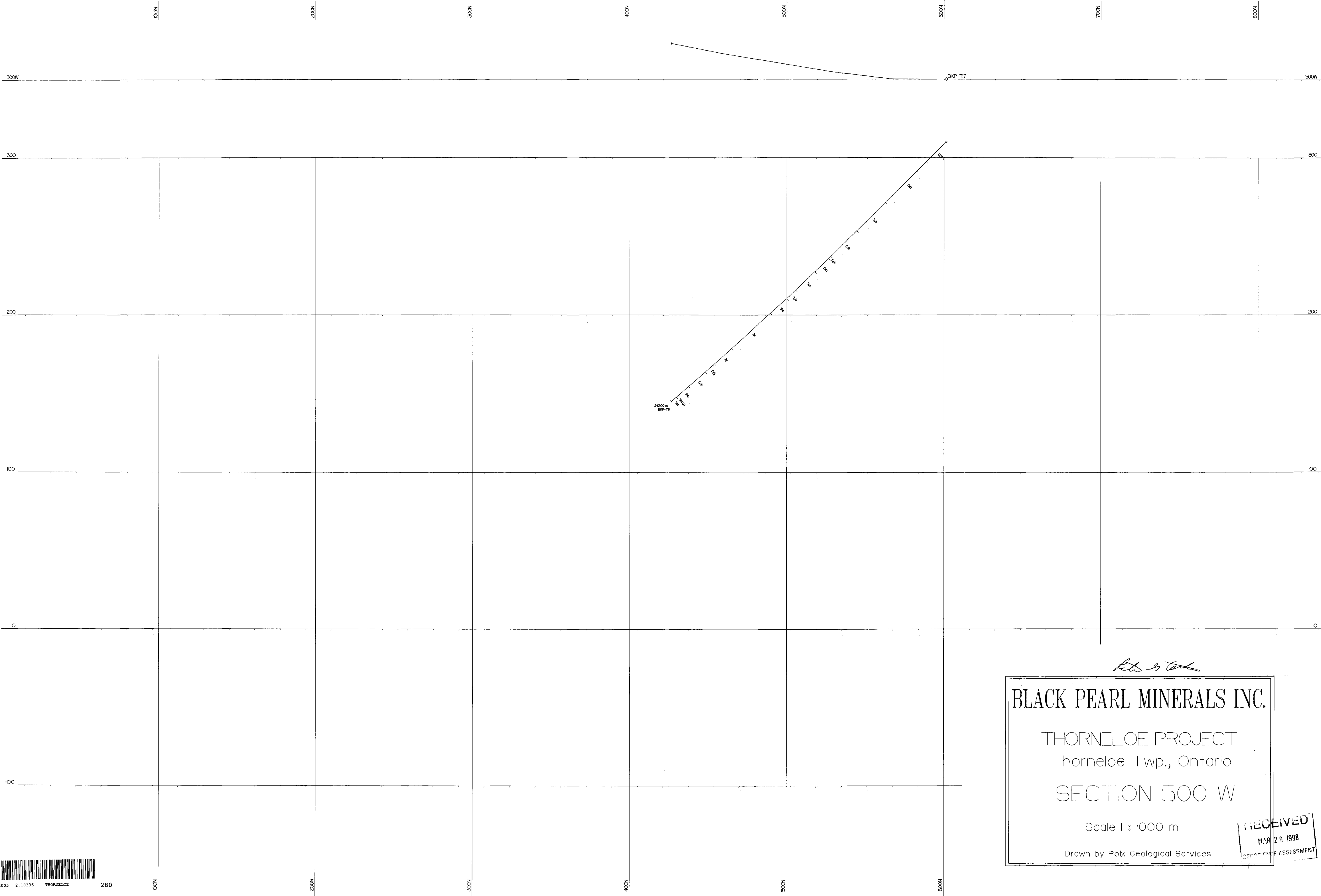
BLACK PEARL MINERALS INC.

THORNELOE PROJECT
 Thorneloe Twp., Ontario
SECTION 500 W

Scale 1 : 1000 m

Drawn by Polk Geological Services

RECEIVED
 MAR 20 1993
 REGISTRATION ASSESSMENT
 OFFICE



Plot by [Signature]

BLACK PEARL MINERALS INC.
 THORNELOE PROJECT
 Thorneloe Twp., Ontario
SECTION 500 W
 Scale 1 : 1000 m
 Drawn by Polk Geological Services

RECEIVED
 MAR 24 1998
 GEOLOGICAL ASSESSMENT

100N 200N 300N 400N 500N 600N 700N 800N

250E 250E

300 300

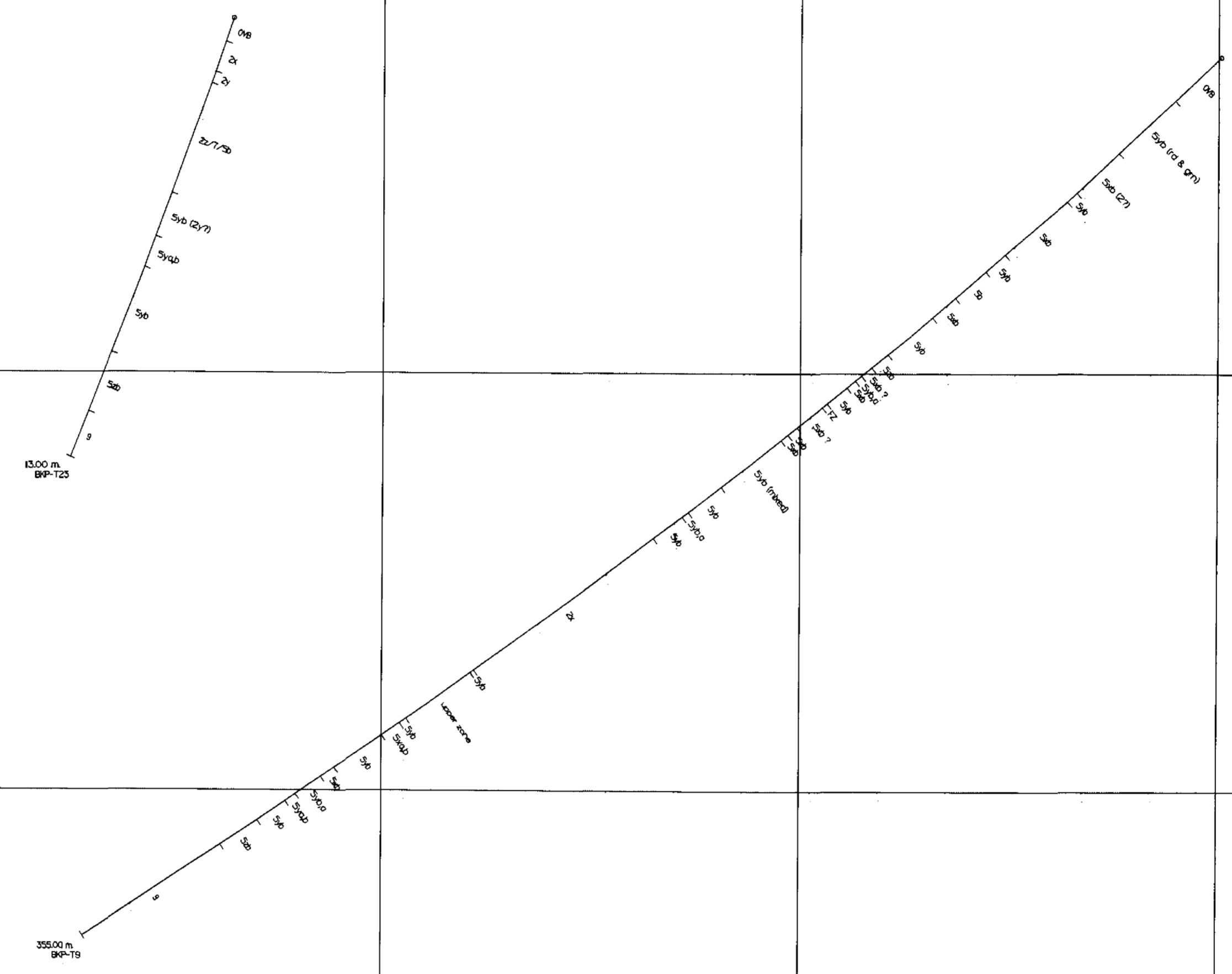
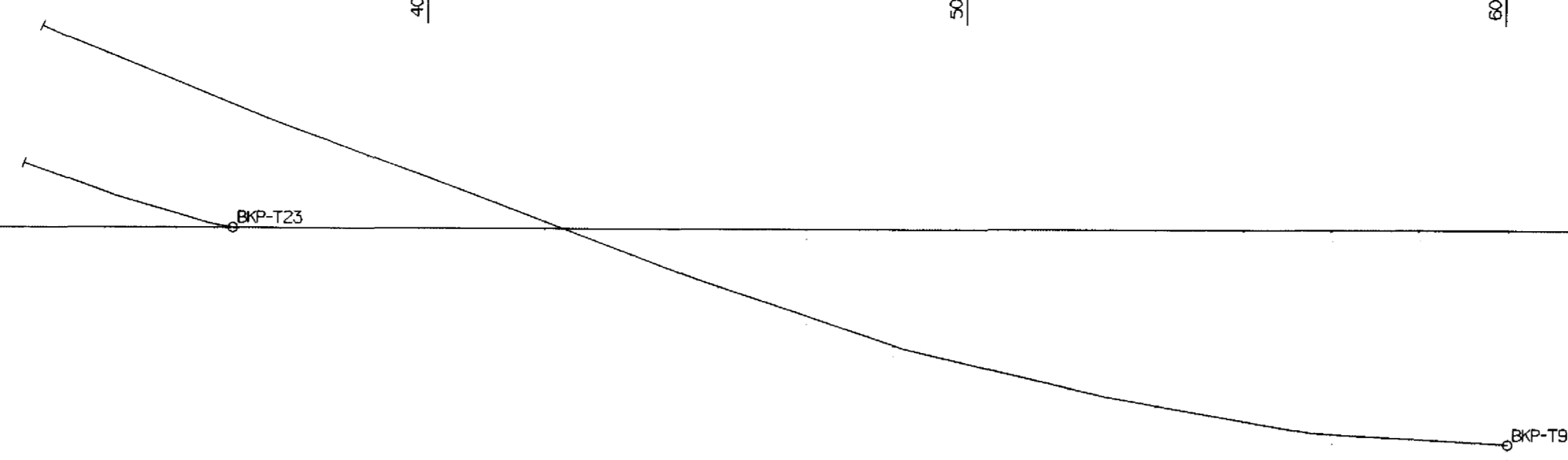
200 200

100 100

0 0

-100 -100

100N 200N 300N 400N 500N 600N



Art G. [Signature]

BLACK PEARL MINERALS INC.

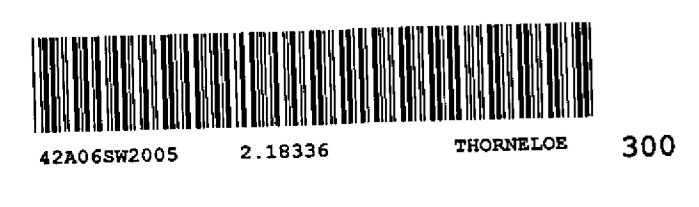
THORNELOE PROJECT
Thorneloe Twp., Ontario

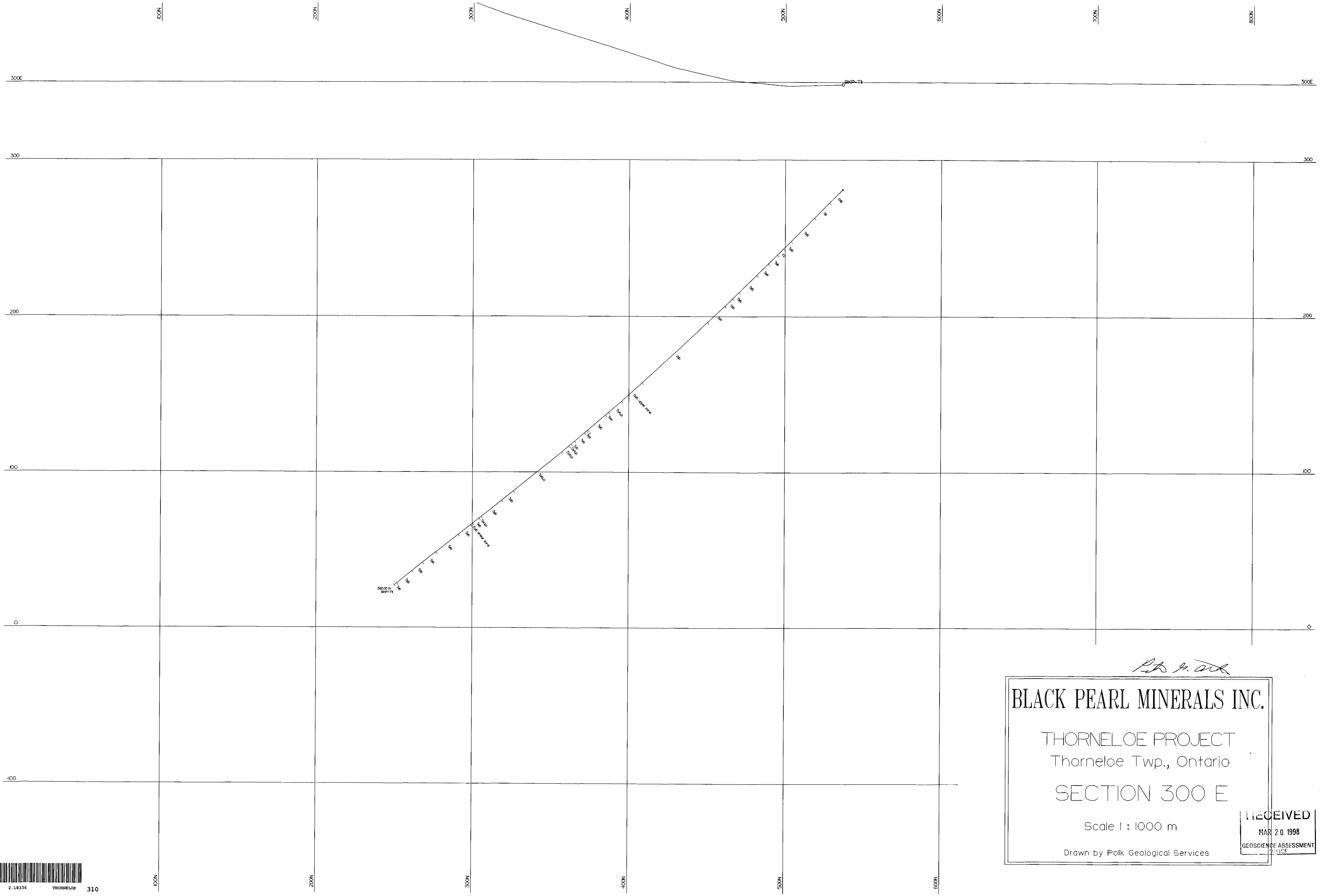
SECTION 250 E

Scale 1 : 1000 m

Drawn by Polk Geological Services

RECEIVED
MAR 24 1998
GEOSCIENCE ASSESSMENT
OFFICE





P. G. Polk

BLACK PEARL MINERALS INC.

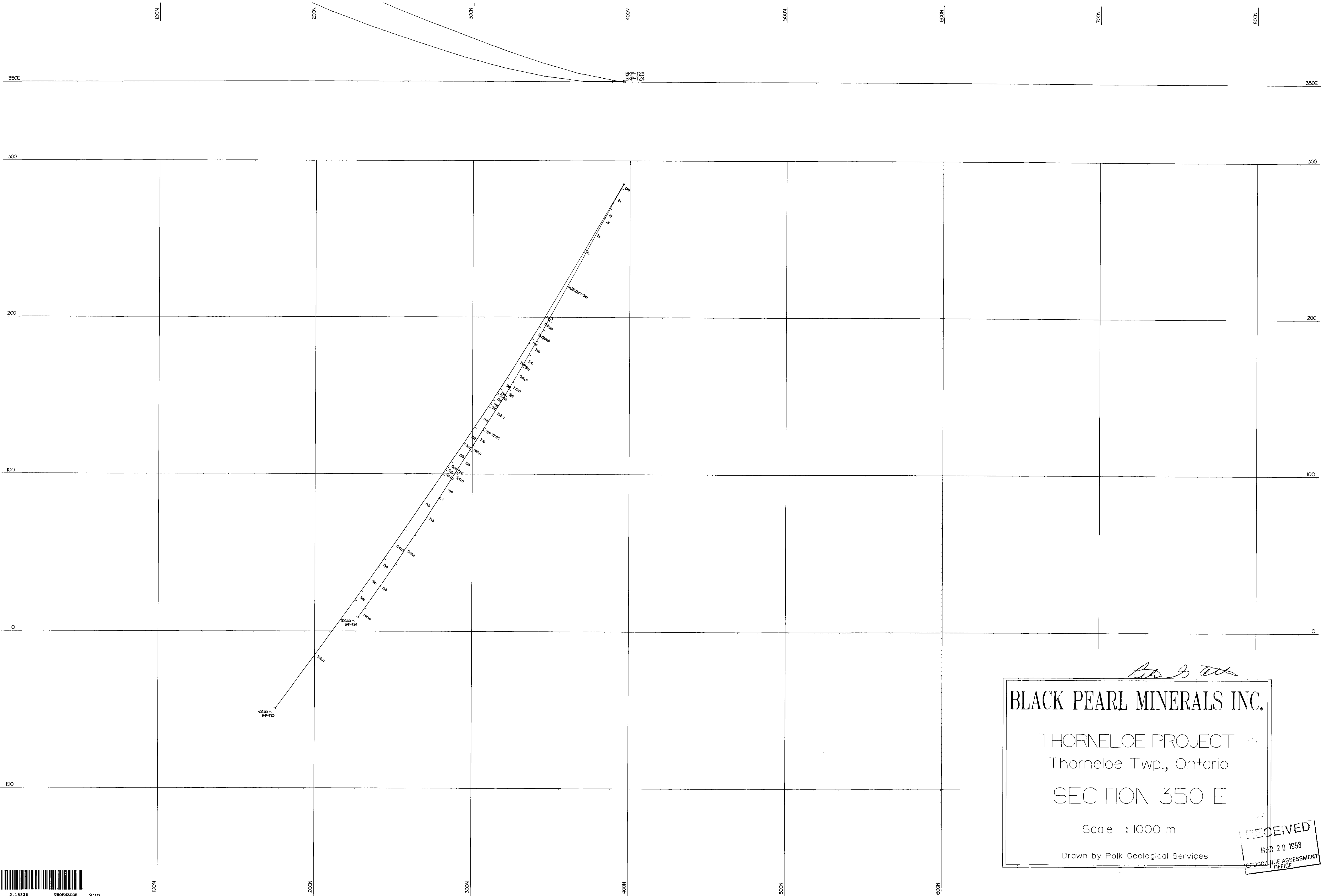
THORNELOE PROJECT
 Thorneloe Twp., Ontario

SECTION 300 E

Scale 1 : 1000 m

Drawn by Polk Geological Services

RECEIVED
 MAR 20 1998
 GEOSCIENCE ASSESSMENT
 BRITISH COLUMBIA



Bob G. ...
BLACK PEARL MINERALS INC.

THORNELOE PROJECT
 Thornebe Twp., Ontario
SECTION 350 E

Scale 1 : 1000 m

Drawn by Polk Geological Services

RECEIVED
 MAR 20 1998
 GEOSCIENCE ASSESSMENT
 OFFICE

2005

2005

2005

2005

2005

2005

2005

2005

450E

450E

300

300

200

200

100

100

0

0

-100

2005

2005

2005

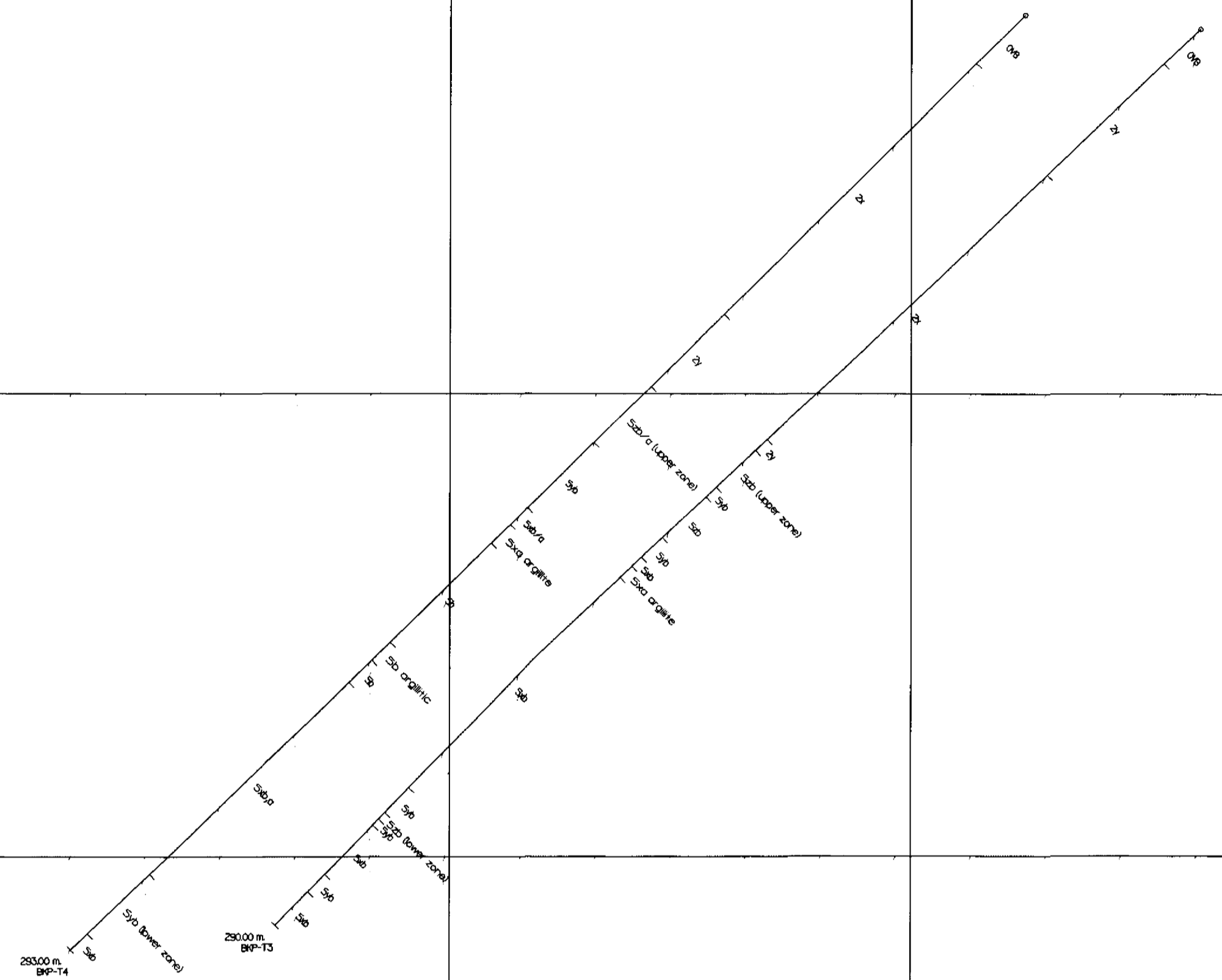
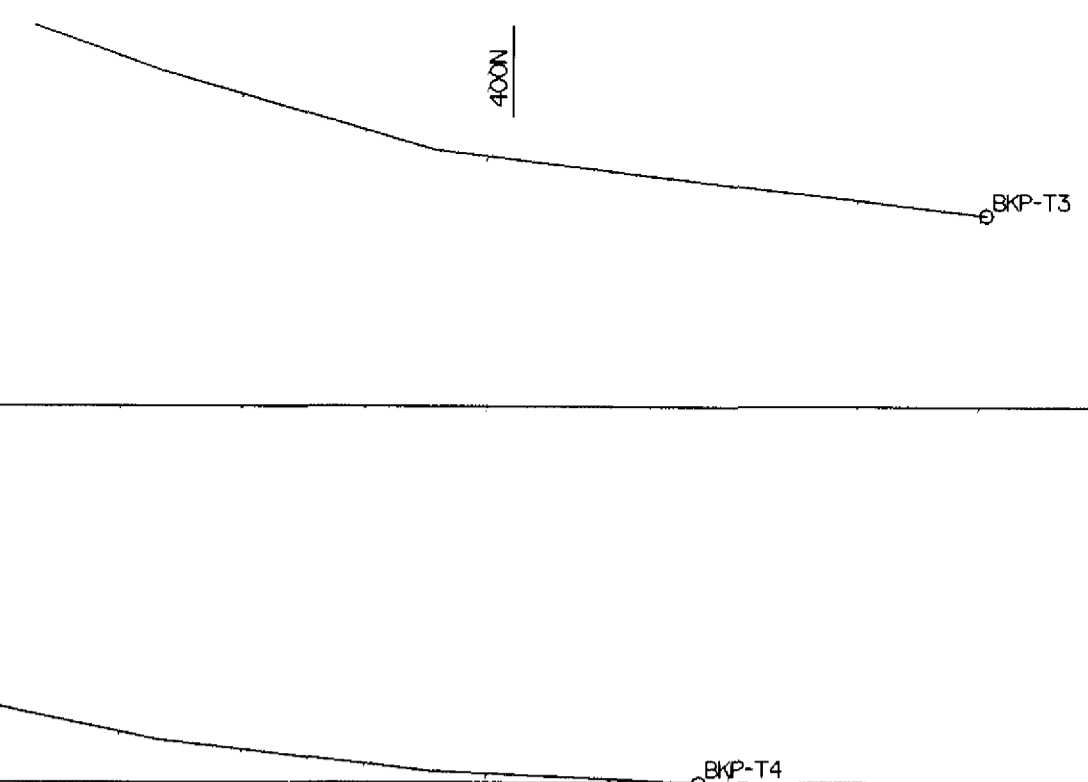
2005

2005

2005

2005

2005



John Polk
BLACK PEARL MINERALS INC.

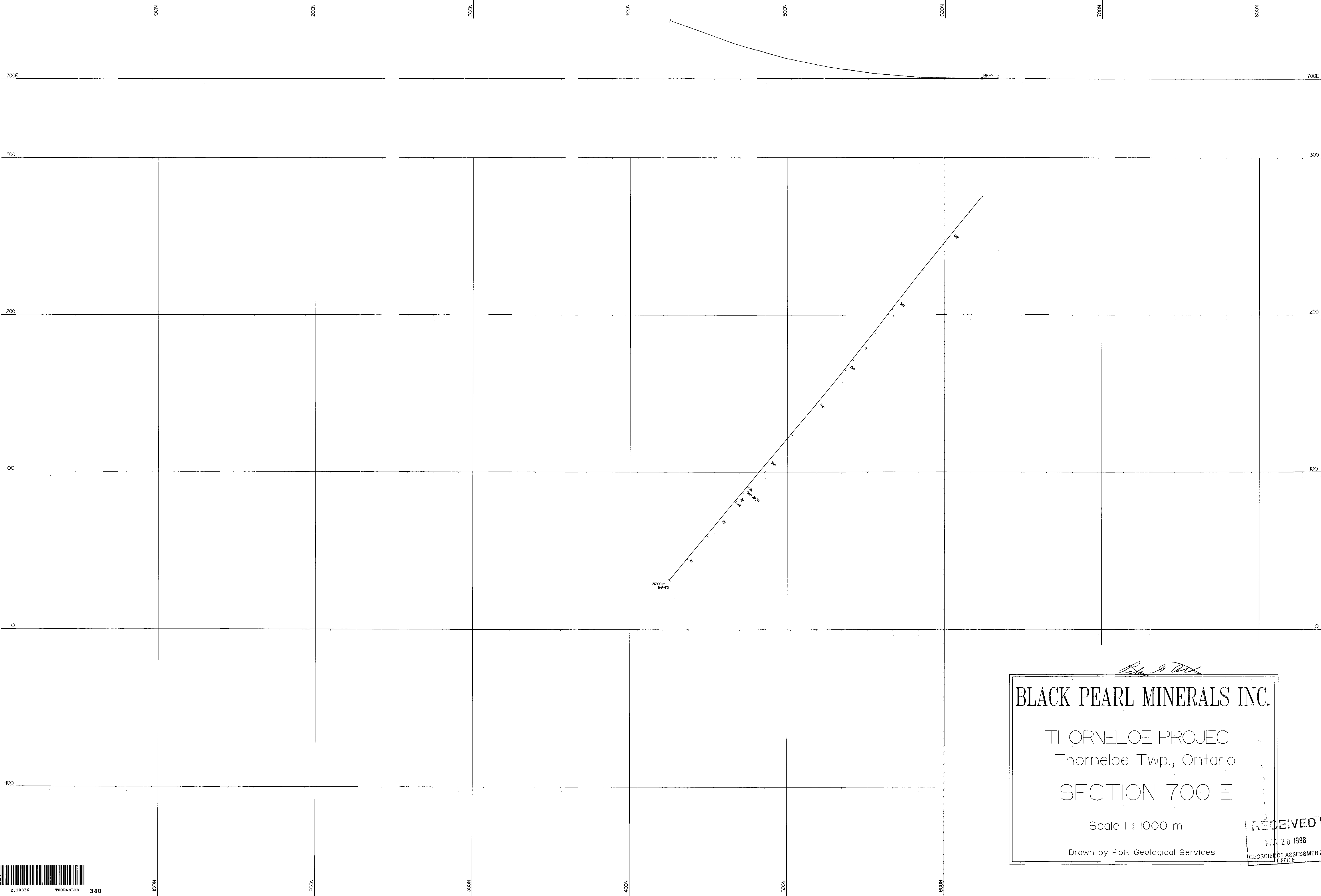
THORNELOE PROJECT
 Thorneloe Twp., Ontario
SECTION 450 E

Scale 1 : 1000 m

Drawn by Polk Geological Services

RECEIVED
 MAR 20 1993
 GEOSCIENCE ASSESSMENT
 OFFICE





Polk G. [Signature]

BLACK PEARL MINERALS INC.

THORNELOE PROJECT
 Thorneloe Twp., Ontario
SECTION 700 E

Scale 1 : 1000 m

Drawn by Polk Geological Services

RECEIVED
 MAR 20 1998
 GEOSCIENCE ASSESSMENT
 DEPT. OF