

ASX ANNOUNCEMENT AND MEDIA RELEASE

21 July 2016

HIGH GRADE GOLD FROM SURFACE AT NAMDINI PROJECT

HIGHLIGHTS

- **119m @ 1.72 g/t including 41m @ 2.57 g/t from surface**
- **First shallow updip drill hole widens gold mineralisation across strike to 275m**
- **Significant gold mineralised intersections within this section include:**
 - **119m @ 1.72 g/t gold - from surface**
 - **98m @ 1.31 g/t gold – from surface**
 - **49m @ 1.39 g/t gold**
 - **31m @ 1.57 g/t gold**
 - **9m @ 4.62 g/t gold**

Cardinal Resources Limited (ASX: CDV) ("**Cardinal**" or "**the Company**") is pleased to report the results of the first shallow updip RC drill hole, NMRC389-767, recently completed on the Namdini Project ("Namdini"), Ghana (Figure 1).

Cardinal's Managing Director, Archie Koimtsidis said:

"This first shallow updip drill hole confirms that the mineralised gold corridor has been widened across strike, thereby significantly enhancing the gold potential of the Namdini project.

This updip drill hole also confirms the presence of near surface gold mineralisation within the Namdini mineralised corridor.

"The width and tenor of gold that continues to be encountered with our drilling at Namdini to date is certainly pointing towards a very large gold system being present within the 900m x 300m that has been the focus of our drilling so far. On top of this, Namdini has great exploration upside given that mineralisation remains open at depth and along strike".

Infill diamond drill holes NMDD393-725 and NMDD391-745 (see ASX announcement dated 17 June 2016) with updip RC hole NMRC389-767 have enabled Section F to be compiled, with a 275m wide gold mineralised zone (Figure 2). This mineralised section confirms the continuation of wide gold mineralisation at depth and along strike and near surface within the Namdini Project.

The potential of the Namdini Project to host a world-class gold project continues to be confirmed by the intersection of long mineralised zones, including 119m @ 1.72 g/t from surface, 98m @ 1.31 g/t Au from surface and 49m @ 1.39 g/t Au, as well as a high grade gold zone of 9m @ 4.44 g/t Au within diamond drill hole NMDD391-745.

Assay results are pending from 11 diamond and 12 RC drill holes, which should provide a constant flow of results in the weeks ahead. The Company has divided up its core submissions between SGS Laboratories in Burkina Faso and Ghana to assist in accelerating receipt of assay results (Figure 1).

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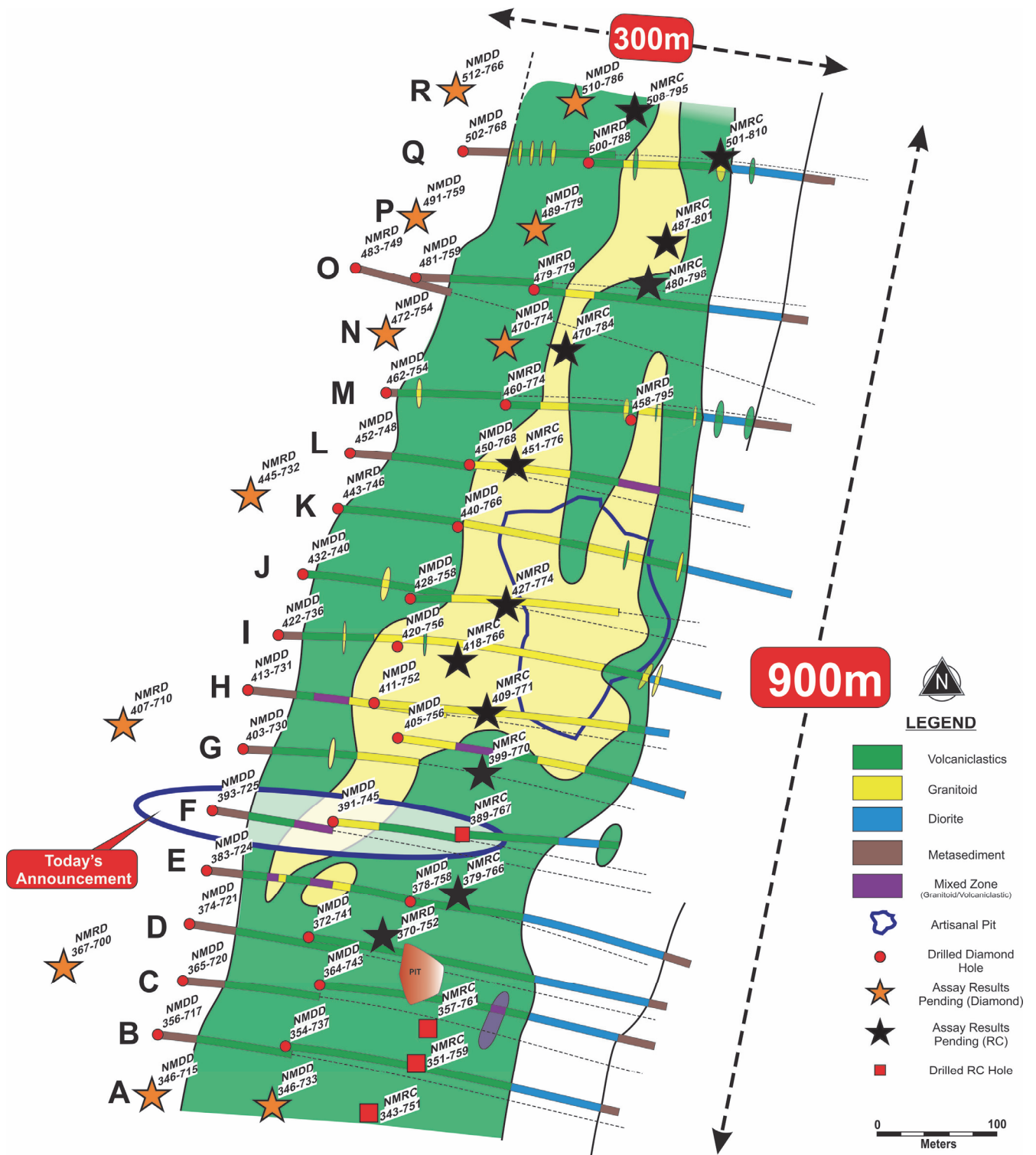


Figure 1: Location of drill holes NMDD393-725, NMDD391-745 and NMRC389-767

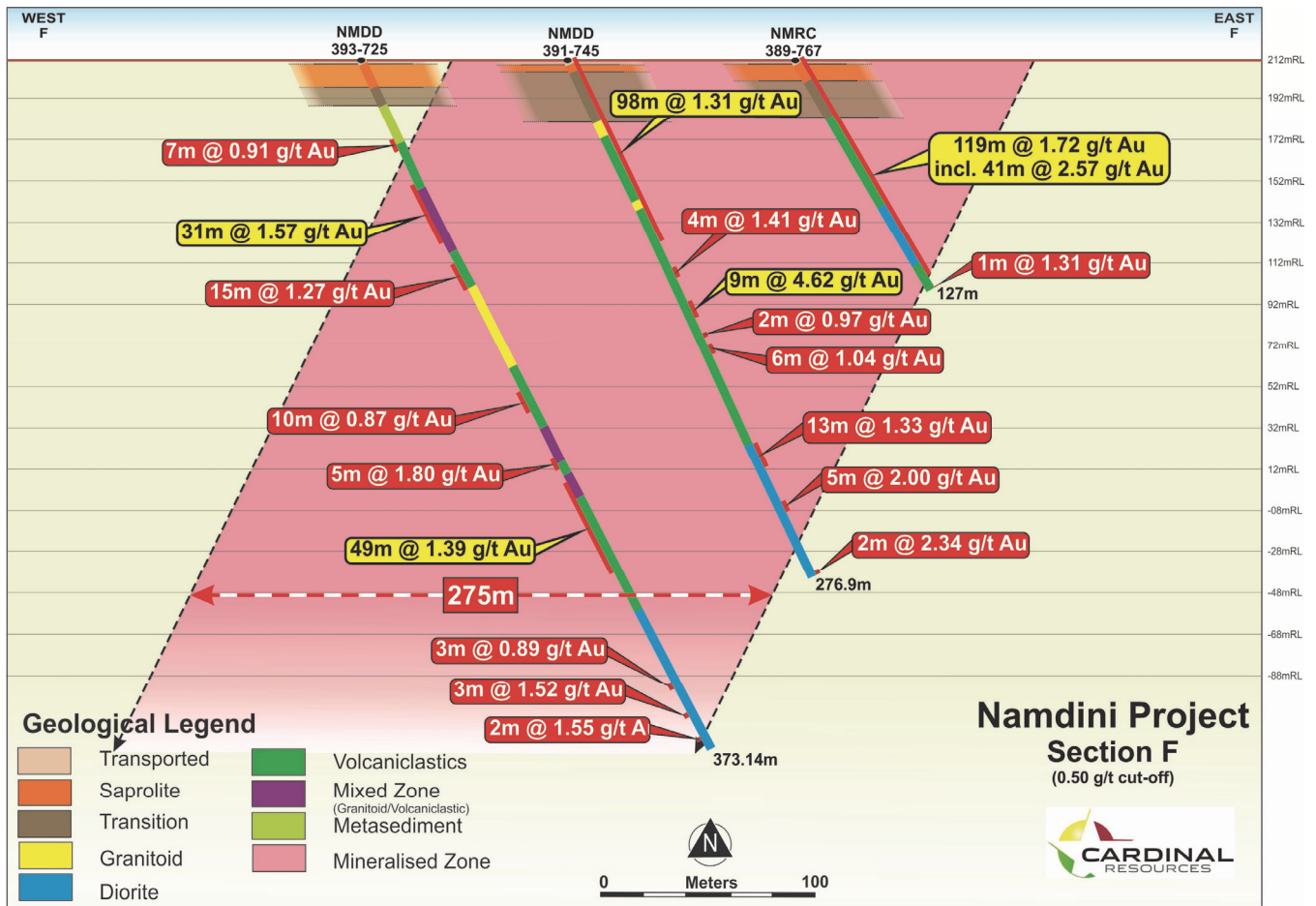


Figure 2: Drill holes NMDD393-725, NMDD391-745 and NMRC389-767 with 275m mineralised zone

NMRC389-767 intersected 104m of gold mineralisation within hydrothermally altered volcaniclastics from 0m to 104m vertical depth, within a mineralised zone of 275m, confirming continuity of mineralisation with depth (Figures 2 and 3).



Figure 3: Hydrothermally altered volcaniclastics within 119m @ 1.72 Au zone (NMRC389-767)

The drill rig was aligned for this RC drill hole at -60° dip drilling east which allows for the shallowing of the drill holes with depth. The azimuth was set at 095° instead of 100° (normal to the strike of the formations) as the borehole traces usually deflect to the right with depth due to the clockwise rotation of the drill rods.

The RC drill hole was surveyed at the top of the drill hole to confirm that the drill rig had been set up correctly. Once harder rock was encountered, PVC casing was inserted for stability of the RC drill hole which was drilled to the planned depth of 127m. The drill hole was also surveyed at the base of the drill hole to determine the dip of the drill hole.

NMDD393-725 intersected 209m of gold mineralisation within hydrothermally altered volcaniclastics from 40m to 249m vertical depths with multiple zones of mineralisation down the drill hole, including 31m @ 1.57 g/t, 49m @ 1.39 g/t and 15m @ 1.27 g/t, confirming continuity of mineralisation with depth (Figures 2 and 4).

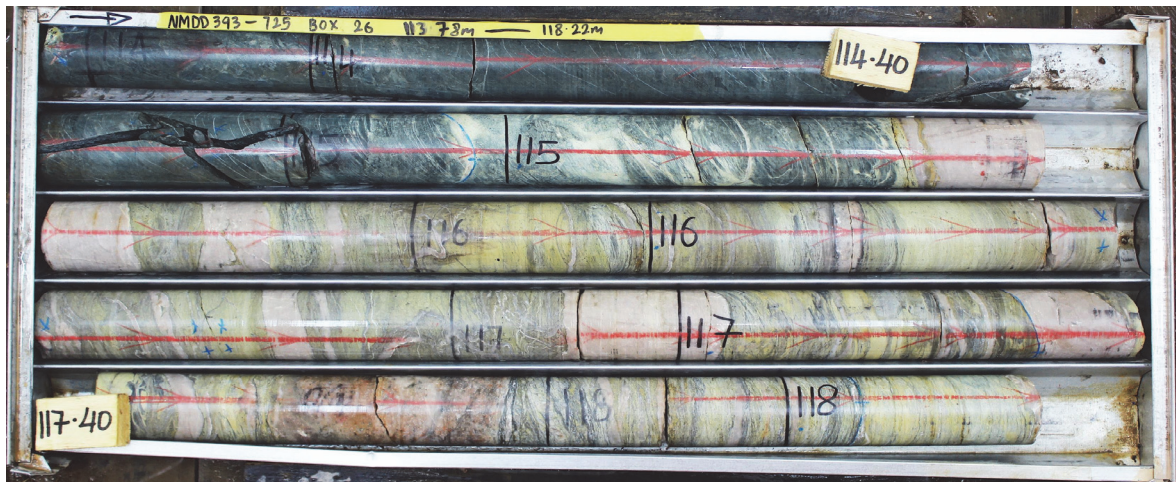


Figure 4: Hydrothermally mineralised and altered volcaniclastics (NMDD393-725)

NMDD391-745 intersected 144m of mineralisation within hydrothermally altered volcaniclastics from surface to 144m vertical depths, including 98m @ 1.31 g/t and 9m @ 4.62 g/t confirming continuity of mineralisation with depth (Figures 2 and 5).



Figure 5: Hydrothermally mineralised and altered volcaniclastics (NMDD391-745)

Drill holes NMDD393-725 and NMDD391-745 were cored from surface. The soft near surface materials were drilled with a Triple Tube core barrel to reduce core losses. Once harder rock was encountered, then HW steel casing was inserted for stability of each hole and HQ size core was drilled to their final depths of 373.14m, 276.9m 127m and respectively.

The drill rigs were aligned for both diamond drill holes at -65° dip drilling east which allows for the shallowing of the drill holes with depth. The azimuth was set at 095° instead of 100° (normal to the strike of the formations) as the borehole traces usually deflect to the right with depth due to the clockwise rotation of the drill rods.

The drill holes were surveyed near the top of each drill hole, then every 30m down the hole to determine the dip and azimuth of the drill holes with depth.

The core was orientated at each drill run using a digital instrument. The core was marked showing the base of the drill hole, then the core from each drill run was laid in a length of angle iron to fit the core together so that the orientation line could be drawn along the length of the core at the drill site. Geotechnical parameters were measured using this orientation line as the datum line.

The core was photographed then cut in half and then cut in half again. One quarter of the core was consistently sampled, with the remaining three quarters stored in metal core trays and placed on metal racks under cover in the core shed at Bolgatanga. The quarter core samples were sent to the SGS Laboratory in Burkina Faso for sample preparation and fire assay.

All of the completed infill diamond and updip RC drill holes were orientated to drill across this mineralised corridor to confirm the continuation of gold mineralisation along strike and at depth.

Namdini Geology

The Namdini Project is located within a Paleo-Proterozoic Greenstone Belt comprising Birimian metavolcanics, volcanoclastics and metasediments located in close proximity to a major 30 km ~N-S regional shear zone with splays. These rock units are intruded by felsic monzonite granitoids and quartz diorites.

The gold mineralisation is developed within foliated, sheared and highly altered volcanoclastic rocks containing sulphides (pyrite and arsenopyrite). The host rocks dip approximately 60° W and strike 010°. Hydrothermal alteration of the volcanoclastics is comprised of silica, iron carbonate (ankerite), sericite, epidote and chlorite. The highly altered rocks contain disseminated gold-bearing sulphides and are distinguished from the grey, unaltered, unmineralised host rocks by characteristic pale to medium green colours.

The monzonite granitoids are medium to coarse grained with quartz vein stockworks and are usually altered to pale green epidote with patches of pink to reddish albite (alkali feldspar). Sulphides of pyrite and arsenopyrite are contained within these granitoids.

The monzonite granitoid intrusive is considered to have been the “heat engine” which remobilised gold bearing sulphide rich fluids which altered the host rocks and precipitated the gold mineralisation within them.

The NNE-SSW trending corridor containing the gold mineralisation is bounded on both east and west sides by foliated metasediments of varying compositions, also dipping 60°W and striking 010°.

The quartz diorites contain primary pyrite sulphides which are weakly mineralised when unaltered. However, the diorites become partly mineralised when they are hydrothermally altered or sheared with quartz veining, or when some mineralised zones of altered volcanoclastics or granitoids occur within them.

Monitoring Of Drilling Programs

Cardinal's technical and management team evaluates all of the available data on a daily basis with the main focus being the expansion of the gold potential.

Cardinal, together with the contract drill rigs, are providing the samples for express assaying services from SGS Laboratories in Ghana and Burkina Faso. This enables the Company to continuously improve its drill plan strategy as new information becomes available.

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APPENDIX 1
NMDD389-767 ASSAY RESULTS

From (m)	To (m)	Width (m)	Au g/t	Intersection (0.5 g/t cut off)	Description
0.00	1.00	1.00	3.13)	Volcaniclastics weathered
1.00	2.00	1.00	2.28)	
2.00	3.00	1.00	1.72)	
3.00	4.00	1.00	1.19)	
4.00	5.00	1.00	5.71)	
5.00	6.00	1.00	19.90)	
6.00	7.00	1.00	8.40)	
7.00	8.00	1.00	7.88)	
8.00	9.00	1.00	2.98)	Volcaniclastics moderately weathered
9.00	10.00	1.00	3.97)	
10.00	11.00	1.00	3.32)	
11.00	12.00	1.00	1.75)	
12.00	13.00	1.00	0.81)	Volcaniclastics slightly weathered + pyrite
13.00	14.00	1.00	0.41)	
14.00	15.00	1.00	0.67)	
15.00	16.00	1.00	1.74)	
16.00	17.00	1.00	1.25)	
17.00	18.00	1.00	1.45	) 41m@2.57
18.00	19.00	1.00	1.36)	
19.00	20.00	1.00	0.74)	
20.00	21.00	1.00	0.80)	
21.00	22.00	1.00	4.11)	
22.00	23.00	1.00	3.84)	
23.00	24.00	1.00	5.25)	
24.00	25.00	1.00	1.16)	
25.00	26.00	1.00	2.07)	
26.00	27.00	1.00	0.98)	
27.00	28.00	1.00	4.12)	
28.00	29.00	1.00	1.28)	
29.00	30.00	1.00	1.19)	
30.00	31.00	1.00	1.84)	
31.00	32.00	1.00	1.40)	
32.00	33.00	1.00	0.73)	
33.00	34.00	1.00	0.47)	
34.00	35.00	1.00	0.22)	
35.00	36.00	1.00	0.51)	
36.00	37.00	1.00	0.11)	
37.00	38.00	1.00	1.19)	
38.00	39.00	1.00	0.46)	
39.00	40.00	1.00	0.91)	
40.00	41.00	1.00	1.95)	
41.00	42.00	1.00	0.16)	
42.00	43.00	1.00	0.11)	
43.00	44.00	1.00	0.18)	
44.00	45.00	1.00	0.27)	
45.00	46.00	1.00	0.47)	

46.00	47.00	1.00	0.33)	
47.00	48.00	1.00	3.15)	
48.00	49.00	1.00	1.42)	
49.00	50.00	1.00	0.09	)	Volcaniclastics variably altered + pyrite
50.00	51.00	1.00	0.95)	
51.00	52.00	1.00	1.26)	
52.00	53.00	1.00	0.74)	
53.00	54.00	1.00	0.57)	
54.00	55.00	1.00	0.30)	
55.00	56.00	1.00	0.88)	
56.00	57.00	1.00	0.70)	
57.00	58.00	1.00	0.99)	
58.00	59.00	1.00	3.78)	
59.00	60.00	1.00	1.03)	
60.00	61.00	1.00	0.07)	
61.00	62.00	1.00	0.04)	
62.00	63.00	1.00	0.17)	
63.00	64.00	1.00	1.82)	
64.00	65.00	1.00	1.02)	
65.00	66.00	1.00	0.42)	
66.00	67.00	1.00	0.32)	
67.00	68.00	1.00	0.08)	
68.00	69.00	1.00	0.06)	
69.00	70.00	1.00	0.42)	
70.00	71.00	1.00	1.63)	
71.00	72.00	1.00	0.72)	
72.00	73.00	1.00	0.24)	
73.00	74.00	1.00	5.08)	
74.00	75.00	1.00	1.06)	
75.00	76.00	1.00	2.34)	
76.00	77.00	1.00	4.01)	
77.00	78.00	1.00	0.61)	
78.00	79.00	1.00	3.80)	
79.00	80.00	1.00	1.62)	
80.00	81.00	1.00	1.36)	
81.00	82.00	1.00	0.83	)	Siliceous diorite + pyrite
82.00	83.00	1.00	0.65)	
83.00	84.00	1.00	2.42)	
84.00	85.00	1.00	1.18)	
85.00	86.00	1.00	1.92)	
86.00	87.00	1.00	1.23)	
87.00	88.00	1.00	4.20)	
88.00	89.00	1.00	2.20	)	Altered diorite + pyrite
89.00	90.00	1.00	1.99)	
90.00	91.00	1.00	4.96)	
91.00	92.00	1.00	1.46)	
92.00	93.00	1.00	1.98)	
93.00	94.00	1.00	0.28)	
94.00	95.00	1.00	1.13)	
95.00	96.00	1.00	0.08)	

96.00	97.00	1.00	0.25)	weakly altered diorite + pyrite
97.00	98.00	1.00	0.17)	
98.00	99.00	1.00	0.24)	
99.00	100.00	1.00	0.80)	
100.00	101.00	1.00	0.29)	
101.00	102.00	1.00	0.57)	
102.00	103.00	1.00	0.04)	
103.00	104.00	1.00	0.70)	
104.00	105.00	1.00	3.54)	
105.00	106.00	1.00	2.74)	
106.00	107.00	1.00	0.22)	variably altered diorite + pyrite
107.00	108.00	1.00	0.56)	
108.00	109.00	1.00	1.97)	
109.00	110.00	1.00	2.81)	
110.00	111.00	1.00	2.87)	
111.00	112.00	1.00	0.80)	
112.00	113.00	1.00	0.84)	
113.00	114.00	1.00	1.80)	
114.00	115.00	1.00	0.90)	
115.00	116.00	1.00	0.37)	
116.00	117.00	1.00	0.47)	Intermediate diorite + pyrite
117.00	118.00	1.00	1.74)	
118.00	119.00	1.00	3.85)	
119.00	120.00	1.00	0.17)	
120.00	121.00	1.00	0.18)	
121.00	122.00	1.00	0.49)	
122.00	123.00	1.00	0.08)	
123.00	124.00	1.00	0.15)	
124.00	125.00	1.00	0.12)	
125.00	126.00	1.00	0.25)	
126.00	127.00	1.00	1.31	) 1m@ 1.31 g/t

0.5 g/t cut off contains not more than 5 consecutive samples <0.5 g/t

APPENDIX 2

NMDD393-725 ASSAY RESULTS

From (m)	To (m)	Width (m)	Au g/t	Intersection (0.5 g/t cut off)	Description
0.00	1.00	1.00	0.09		Transported soil + laterite nodules
1.00	2.00	1.00	0.02		Saprolite
2.00	3.00	1.00	0.15		
3.00	4.00	1.00	0.03		
4.00	5.00	1.00	<0.01		
5.00	6.00	1.00	<0.01		
6.00	7.00	1.00	<0.01		
7.00	8.00	1.00	<0.01		
8.00	9.00	1.00	<0.01		
9.00	10.00	1.00	<0.01		
10.00	11.00	1.00	0.19		
11.00	12.00	1.00	<0.01		
12.00	13.00	1.00	0.02		

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13.00	14.00	1.00	<0.01		
14.00	15.00	1.00	0.02		
15.00	16.00	1.00	0.03		
16.00	17.00	1.00	0.20		
17.00	18.00	1.00	<0.01		
18.00	19.00	1.00	0.02		
19.00	20.00	1.00	<0.01		
20.00	21.00	1.00	<0.01		
21.00	22.00	1.00	0.02		
22.00	23.00	1.00	0.03		
23.00	24.00	1.00	0.02		
24.00	25.00	1.00	<0.01		
25.00	26.00	1.00	<0.01		
26.00	27.00	1.00	<0.01		
27.00	28.00	1.00	<0.01		
28.00	29.00	1.00	0.02		
29.00	30.00	1.00	<0.01		
30.00	31.00	1.00	0.19		
31.00	32.00	1.00	<0.01		
32.00	33.00	1.00	<0.01		
33.00	34.00	1.00	<0.01		
34.00	35.00	1.00	<0.01		
35.00	36.00	1.00	<0.01		
36.00	37.00	1.00	<0.01		
37.00	38.00	1.00	0.02		
38.00	39.00	1.00	0.02		
39.00	40.00	1.00	0.57		
40.00	41.00	1.00	0.17		
41.00	42.00	1.00	0.28		
42.00	43.00	1.00	2.69)	
43.00	44.00	1.00	0.35)	
44.00	45.00	1.00	<0.01)	
45.00	46.00	1.00	0.12	) 7m @ 0.91 g/t	
46.00	47.00	1.00	0.07)	
47.00	48.00	1.00	0.97)	
48.00	49.00	1.00	2.14)	
49.00	50.00	1.00	0.34		
50.00	51.00	1.00	0.04		
51.00	52.00	1.00	0.48		
52.00	53.00	1.00	0.07		
53.00	54.00	1.00	0.09		
54.00	55.00	1.00	0.79		
55.00	56.00	1.00	0.01		
56.00	57.00	1.00	0.07		
57.00	58.00	1.00	0.44		
58.00	59.00	1.00	0.36		
59.00	60.00	1.00	0.36		
60.00	61.00	1.00	0.28		
61.00	62.00	1.00	0.03		
62.00	63.00	1.00	0.92		

Weathered metasediment

Metasediment

**Volcaniclastic & metasediment
mixed units**

Variably altered volcaniclastic

63.00	64.00	1.00	0.09		
64.00	65.00	1.00	0.02		
65.00	66.00	1.00	<0.01		
66.00	67.00	1.00	0.59)	
67.00	68.00	1.00	<0.01)	
68.00	69.00	1.00	0.74)	
69.00	70.00	1.00	12.50)	
70.00	71.00	1.00	8.50)	
71.00	72.00	1.00	0.41)	
72.00	73.00	1.00	2.47)	
73.00	74.00	1.00	0.73)	
74.00	75.00	1.00	1.53)	
75.00	76.00	1.00	0.46)	
76.00	77.00	1.00	0.20)	
77.00	78.00	1.00	0.08	)	Altered granitoid + pyrite
78.00	79.00	1.00	0.09)	
79.00	80.00	1.00	1.23)	
80.00	81.00	1.00	1.90	) 31m @ 1.57 g/t	
81.00	82.00	1.00	1.23)	
82.00	83.00	1.00	0.55)	
83.00	84.00	1.00	0.75)	
84.00	85.00	1.00	1.16)	
85.00	86.00	1.00	0.80)	
86.00	87.00	1.00	0.17)	
87.00	88.00	1.00	0.48)	
88.00	89.00	1.00	1.74	)	Altered volcaniclastic + pyrite
89.00	90.00	1.00	1.51)	
90.00	91.00	1.00	0.10)	
91.00	92.00	1.00	0.31)	
92.00	93.00	1.00	0.86)	
93.00	94.00	1.00	2.29)	
94.00	95.00	1.00	0.45	)	Altered pink granitoid + v'clastic
95.00	96.00	1.00	0.20)	
96.00	97.00	1.00	4.62)	
97.00	98.00	1.00	0.03		
98.00	99.00	1.00	<0.01		
99.00	100.00	1.00	0.08		
100.00	101.00	1.00	0.14		
101.00	102.00	1.00	0.38		
102.00	103.00	1.00	<0.01		
103.00	104.00	1.00	0.04		
104.00	105.00	1.00	0.07		
105.00	106.00	1.00	<0.01		
106.00	107.00	1.00	0.48		Variably altered volcaniclastic
107.00	108.00	1.00	<0.01		
108.00	109.00	1.00	0.14		
109.00	110.00	1.00	2.63)	
110.00	111.00	1.00	1.33)	
111.00	112.00	1.00	0.36)	
112.00	113.00	1.00	1.32)	

113.00	114.00	1.00	<0.01)	
114.00	115.00	1.00	0.07)	
115.00	116.00	1.00	0.82)	
116.00	117.00	1.00	2.17	) 15m @ 1.27 g/t	
117.00	118.00	1.00	3.39)	
118.00	119.00	1.00	1.78)	
119.00	120.00	1.00	0.09)	
120.00	121.00	1.00	3.55)	
121.00	122.00	1.00	0.16)	
122.00	123.00	1.00	0.59)	
123.00	124.00	1.00	0.84)	
124.00	125.00	1.00	0.45		
125.00	126.00	1.00	0.28		
126.00	127.00	1.00	0.16		
127.00	128.00	1.00	0.08		
128.00	129.00	1.00	0.16		
129.00	130.00	1.00	0.12		
130.00	131.00	1.00	0.39		
131.00	132.00	1.00	0.32		
132.00	133.00	1.00	0.28		
133.00	134.00	1.00	0.40		
134.00	135.00	1.00	0.41		
135.00	136.00	1.00	<0.01		
136.00	137.00	1.00	0.31		
137.00	138.00	1.00	0.19		
138.00	139.00	1.00	0.29		
139.00	140.00	1.00	0.11		
140.00	141.00	1.00	0.17		
141.00	142.00	1.00	0.18		Altered granitoid + pyrite
142.00	143.00	1.00	0.19		
143.00	144.00	1.00	0.17		
144.00	145.00	1.00	0.14		
145.00	146.00	1.00	0.21		
146.00	147.00	1.00	0.62		
147.00	148.00	1.00	0.62		
148.00	149.00	1.00	0.67		
149.00	150.00	1.00	0.59		
150.00	151.00	1.00	0.40		
151.00	152.00	1.00	0.39		
152.00	153.00	1.00	0.26		
153.00	154.00	1.00	1.05		
154.00	155.00	1.00	0.28		
155.00	156.00	1.00	0.30		
156.00	157.00	1.00	0.48		
157.00	158.00	1.00	0.91		
158.00	159.00	1.00	0.64		
159.00	160.00	1.00	0.50		
160.00	161.00	1.00	0.64		
161.00	162.00	1.00	0.40		
162.00	163.00	1.00	0.27		
163.00	164.00	1.00	0.23		

164.00	165.00	1.00	0.44		
165.00	166.00	1.00	0.53		
166.00	167.00	1.00	2.52		
167.00	168.00	1.00	0.28		
168.00	169.00	1.00	0.11		
169.00	170.00	1.00	0.21		
170.00	171.00	1.00	0.15		
171.00	172.00	1.00	0.56		
172.00	173.00	1.00	0.59		
173.00	174.00	1.00	0.33		
174.00	175.00	1.00	<0.01		
175.00	176.00	1.00	0.03		
176.00	177.00	1.00	0.12		
177.00	178.00	1.00	0.42		
178.00	179.00	1.00	0.21		
179.00	180.00	1.00	1.89)	
180.00	181.00	1.00	1.14	)	Altered volcaniclastic + pyrite
181.00	182.00	1.00	2.02)	
182.00	183.00	1.00	0.65)	
183.00	184.00	1.00	0.55	) 10m @ 0.87 g/t	
184.00	185.00	1.00	0.19)	
185.00	186.00	1.00	0.13)	
186.00	187.00	1.00	0.04)	
187.00	188.00	1.00	0.56)	
188.00	189.00	1.00	1.52)	
189.00	190.00	1.00	0.34		
190.00	191.00	1.00	0.06		
191.00	192.00	1.00	0.04		
192.00	193.00	1.00	0.02		
193.00	194.00	1.00	0.40		
194.00	195.00	1.00	1.30		
195.00	196.00	1.00	0.11		
196.00	197.00	1.00	0.21		
197.00	198.00	1.00	0.64		
198.00	199.00	1.00	0.71		
199.00	200.00	1.00	0.52		Altered pink granitoid + pyrite
200.00	201.00	1.00	0.20		
201.00	202.00	1.00	0.04		
202.00	203.00	1.00	0.30		
203.00	204.00	1.00	0.01		
204.00	205.00	1.00	0.90		
205.00	206.00	1.00	0.70		
206.00	207.00	1.00	0.09		
207.00	208.00	1.00	0.75		
208.00	209.00	1.00	0.11		
209.00	210.00	1.00	0.47		Variably altered volcaniclastic
210.00	211.00	1.00	0.16		
211.00	212.00	1.00	0.20		
212.00	213.00	1.00	0.18		
213.00	214.00	1.00	0.12		

214.00	215.00	1.00	3.85)	
215.00	216.00	1.00	3.04)	
216.00	217.00	1.00	1.57	) 5m @ 1.80 g/t	
217.00	218.00	1.00	0.01)	
218.00	219.00	1.00	0.53)	
219.00	220.00	1.00	0.04		
220.00	221.00	1.00	0.35		
221.00	222.00	1.00	0.12		
222.00	223.00	1.00	0.10		
223.00	224.00	1.00	0.06		
224.00	225.00	1.00	0.11		
225.00	226.00	1.00	0.17		
226.00	227.00	1.00	0.58	)	Altered pink granitoid + pyrite
227.00	228.00	1.00	0.29)	
228.00	229.00	1.00	0.85	)	Altered volcaniclastic + pyrite
229.00	230.00	1.00	0.22	)	Altered pink granitoid + pyrite
230.00	231.00	1.00	0.67)	
231.00	232.00	1.00	0.63	)	Altered volcaniclastic + pyrite
232.00	233.00	1.00	0.04)	
233.00	234.00	1.00	0.42)	
234.00	235.00	1.00	0.77)	
235.00	236.00	1.00	1.04	)	Altered pink granitoid + pyrite
236.00	237.00	1.00	5.01)	
237.00	238.00	1.00	1.48)	
238.00	239.00	1.00	2.16)	
239.00	240.00	1.00	9.24)	
240.00	241.00	1.00	0.30)	
241.00	242.00	1.00	3.80)	
242.00	243.00	1.00	1.76)	
243.00	244.00	1.00	0.43)	
244.00	245.00	1.00	0.69)	
245.00	246.00	1.00	0.33)	
246.00	247.00	1.00	0.15)	
247.00	248.00	1.00	1.48	) 49m @ 1.39 g/t	
248.00	249.00	1.00	1.52)	
249.00	250.00	1.00	0.39)	
250.00	251.00	1.00	0.79)	
251.00	252.00	1.00	0.17)	
252.00	253.00	1.00	0.30)	
253.00	254.00	1.00	2.38)	
254.00	255.00	1.00	1.32)	
255.00	256.00	1.00	0.13)	
256.00	257.00	1.00	1.64)	
257.00	258.00	1.00	1.56)	
258.00	259.00	1.00	<0.01)	
259.00	260.00	1.00	2.76)	
260.00	261.00	1.00	0.13)	
261.00	262.00	1.00	0.75)	
262.00	263.00	1.00	1.76)	
263.00	264.00	1.00	2.59	)	Variably altered volcaniclastic

264.00	265.00	1.00	1.50)	
265.00	266.00	1.00	1.34)	
266.00	267.00	1.00	1.86)	
267.00	268.00	1.00	2.31)	
268.00	269.00	1.00	1.59)	
269.00	270.00	1.00	1.66)	
270.00	271.00	1.00	1.52)	
271.00	272.00	1.00	0.02)	
272.00	273.00	1.00	4.51)	
273.00	274.00	1.00	0.32)	
274.00	275.00	1.00	0.74)	
275.00	276.00	1.00	0.18		
276.00	277.00	1.00	0.15		
277.00	278.00	1.00	0.29		
278.00	279.00	1.00	0.42		
279.00	280.00	1.00	<0.01		
280.00	281.00	1.00	0.20		
281.00	282.00	1.00	0.03		
282.00	283.00	1.00	0.02		
283.00	284.00	1.00	0.16		
284.00	285.00	1.00	0.03		
285.00	286.00	1.00	0.01		
286.00	287.00	1.00	0.06		
287.00	288.00	1.00	<0.01		
288.00	289.00	1.00	0.01		
289.00	290.00	1.00	<0.01		
290.00	291.00	1.00	<0.01		
291.00	292.00	1.00	0.01		
292.00	293.00	1.00	<0.01		
293.00	294.00	1.00	<0.01		
294.00	295.00	1.00	0.06		
295.00	296.00	1.00	0.02		
296.00	297.00	1.00	0.03		
297.00	298.00	1.00	0.01		
298.00	299.00	1.00	<0.01		
299.00	300.00	1.00	<0.01		
300.00	301.00	1.00	<0.01		
301.00	302.00	1.00	<0.01		
302.00	303.00	1.00	<0.01		
303.00	304.00	1.00	<0.01		
304.00	305.00	1.00	<0.01		
305.00	306.00	1.00	<0.01		
306.00	307.00	1.00	<0.01		
307.00	308.00	1.00	<0.01		
308.00	309.00	1.00	<0.01		
309.00	310.00	1.00	<0.01		
310.00	311.00	1.00	<0.01		
311.00	312.00	1.00	<0.01		
312.00	313.00	1.00	<0.01		
313.00	314.00	1.00	<0.01		
314.00	315.00	1.00	<0.01		

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315.00	316.00	1.00	<0.01		
316.00	317.00	1.00	<0.01		
317.00	318.00	1.00	<0.01		
318.00	319.00	1.00	<0.01		
319.00	320.00	1.00	<0.01		
320.00	321.00	1.00	<0.01		
321.00	322.00	1.00	<0.01		
322.00	323.00	1.00	<0.01		
323.00	324.00	1.00	0.01		
324.00	325.00	1.00	0.22		
325.00	326.00	1.00	0.15		
326.00	327.00	1.00	0.07		
327.00	328.00	1.00	0.05		
328.00	329.00	1.00	0.04		
329.00	330.00	1.00	0.08		
330.00	331.00	1.00	0.84		
331.00	332.00	1.00	0.90		
332.00	333.00	1.00	0.17		
333.00	334.00	1.00	0.13		
334.00	335.00	1.00	0.16		
335.00	336.00	1.00	1.08	)	Variably altered diorite with pyrite blebs
336.00	337.00	1.00	0.34	) 3m @ 0.89 g/t	
337.00	338.00	1.00	1.26)	
338.00	339.00	1.00	0.06		
339.00	340.00	1.00	0.04		
340.00	341.00	1.00	0.04		
341.00	342.00	1.00	0.12		
342.00	343.00	1.00	0.02		
343.00	344.00	1.00	0.22		
344.00	345.00	1.00	0.49		
345.00	346.00	1.00	0.40		
346.00	347.00	1.00	0.63		
347.00	348.00	1.00	0.34		
348.00	349.00	1.00	0.41		
349.00	350.00	1.00	0.07		
350.00	351.00	1.00	0.02		
351.00	352.00	1.00	0.85)	
352.00	353.00	1.00	0.01	) 3m @ 1.52 g/t	
353.00	354.00	1.00	3.71)	
354.00	355.00	1.00	0.19		
355.00	356.00	1.00	0.07		
356.00	357.00	1.00	0.06		
357.00	358.00	1.00	0.02		
358.00	359.00	1.00	<0.01		
359.00	360.00	1.00	0.01		
360.00	361.00	1.00	<0.01		
361.00	362.00	1.00	0.01		
362.00	363.00	1.00	0.08		
363.00	364.00	1.00	0.03		
364.00	365.00	1.00	1.64) 2m @ 1.55 g/t	
365.00	366.00	1.00	1.46)	

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366.00	367.00	1.00	0.17		
367.00	368.00	1.00	0.02		
368.00	369.00	1.00	<0.01		
369.00	370.00	1.00	<0.01		
370.00	371.00	1.00	0.01		
371.00	372.00	1.00	0.04		
372.00	373.14	1.14	0.04		EOH

0.6 g/t cut off contains not more than 5 consecutive samples <0.5 g/t

APPENDIX 3 NMDD391-745 ASSAY RESULTS

From (m)	To (m)	Width (m)	Au g/t	Intersection (0.5 g/t cut off)	Description
0.00	1.00	1.00	1.09)	Transported soil + laterite nodules
1.00	2.00	1.00	0.42)	Saprolite
2.00	3.00	1.00	0.39)	
3.00	4.00	1.00	0.33)	
4.00	5.00	1.00	0.88)	
5.00	6.00	1.00	1.32)	
6.00	7.00	1.00	0.63)	
7.00	8.00	1.00	1.12)	Weathered granitoid + qtz veining
8.00	9.00	1.00	1.19)	
9.00	10.00	1.00	0.35)	
10.00	11.00	1.00	0.42)	
11.00	12.00	1.00	0.52)	
12.00	13.00	1.00	0.77)	Moderately weathered granitoid with qtz veining
13.00	14.00	1.00	0.91)	
14.00	15.00	1.00	1.92)	
15.00	16.00	1.00	1.70)	
16.00	17.00	1.00	1.15)	
17.00	18.00	1.00	1.39)	
18.00	19.00	1.00	2.29)	
19.00	20.00	1.00	1.53)	
20.00	21.00	1.00	0.67)	
21.00	22.00	1.00	0.76)	
22.00	23.00	1.00	0.98)	
23.00	24.00	1.00	1.52)	
24.00	25.00	1.00	1.33)	
25.00	26.00	1.00	0.62)	
26.00	27.00	1.00	1.24)	
27.00	28.00	1.00	0.83)	Slightly weathered granitoid with brown staining
28.00	29.00	1.00	2.17)	
29.00	30.00	1.00	1.04)	
30.00	31.00	1.00	1.10)	
31.00	32.00	1.00	0.75)	
32.00	33.00	1.00	0.48)	
33.00	34.00	1.00	0.57)	
34.00	35.00	1.00	0.90)	
35.00	36.00	1.00	0.43)	
36.00	37.00	1.00	0.18)	

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37.00	38.00	1.00	0.59)	Altered granitoid (pinkish) + pyrite
38.00	39.00	1.00	0.75)	
39.00	40.00	1.00	0.83)	
40.00	41.00	1.00	0.58)	
41.00	42.00	1.00	0.50)	
42.00	43.00	1.00	0.20)	
43.00	44.00	1.00	2.52)	
44.00	45.00	1.00	1.00)	
45.00	46.00	1.00	2.16)	
46.00	47.00	1.00	1.35)	
47.00	48.00	1.00	1.15)) 98m @ 1.31 g/t
48.00	49.00	1.00	3.11)	
49.00	50.00	1.00	4.01)	
50.00	51.00	1.00	1.98)	
51.00	52.00	1.00	0.65)	
52.00	53.00	1.00	0.22)	
53.00	54.00	1.00	0.61)	
54.00	55.00	1.00	0.23)	
55.00	56.00	1.00	2.54)	
56.00	57.00	1.00	1.01)	Altered volcaniclastic + pyrite
57.00	58.00	1.00	2.47)	
58.00	59.00	1.00	3.90)	
59.00	60.00	1.00	4.24)	
60.00	61.00	1.00	5.09)	
61.00	62.00	1.00	2.59)	
62.00	63.00	1.00	1.85)	
63.00	64.00	1.00	1.49)	
64.00	65.00	1.00	0.95)	
65.00	66.00	1.00	0.45)	Altered granitoid + pyrite
66.00	67.00	1.00	0.46)	
67.00	68.00	1.00	1.93)	
68.00	69.00	1.00	0.78)	
69.00	70.00	1.00	1.42)	
70.00	71.00	1.00	0.93)	
71.00	72.00	1.00	0.03)	
72.00	73.00	1.00	0.62)	
73.00	74.00	1.00	0.28)	
74.00	75.00	1.00	0.01)	
75.00	76.00	1.00	0.29)	
76.00	77.00	1.00	0.95)	
77.00	78.00	1.00	0.70)	
78.00	79.00	1.00	1.60)	
79.00	80.00	1.00	0.17)	
80.00	81.00	1.00	1.17)	
81.00	82.00	1.00	0.12)	
82.00	83.00	1.00	0.91)	
83.00	84.00	1.00	0.40)	
84.00	85.00	1.00	0.86)	
85.00	86.00	1.00	0.62)	
86.00	87.00	1.00	0.16)	

87.00	88.00	1.00	0.09)	
88.00	89.00	1.00	1.41)	
89.00	90.00	1.00	3.28)	
90.00	91.00	1.00	3.96)	
91.00	92.00	1.00	8.30)	
92.00	93.00	1.00	1.68)	
93.00	94.00	1.00	1.10)	
94.00	95.00	1.00	0.27)	
95.00	96.00	1.00	0.57)	
96.00	97.00	1.00	0.58)	
97.00	98.00	1.00	7.87)	
98.00	99.00	1.00	0.11		
99.00	100.00	1.00	0.30		
100.00	101.00	1.00	0.10		
101.00	102.00	1.00	0.04		
102.00	103.00	1.00	0.04		
103.00	104.00	1.00	0.10		
104.00	105.00	1.00	0.01		
105.00	106.00	1.00	0.10		
106.00	107.00	1.00	0.07		
107.00	108.00	1.00	0.23		
108.00	109.00	1.00	0.47		
109.00	110.00	1.00	0.39		
110.00	111.00	1.00	0.34		
111.00	112.00	1.00	0.55		
112.00	113.00	1.00	0.39		
113.00	114.00	1.00	0.77	)	Variably altered volcanoclastic + pyrite
114.00	115.00	1.00	0.31)	
115.00	116.00	1.00	2.50	) 4m @ 1.41 g/t	
116.00	117.00	1.00	2.04)	
117.00	118.00	1.00	0.07		
118.00	119.00	1.00	0.02		
119.00	120.00	1.00	<0.01		
120.00	121.00	1.00	0.03		
121.00	122.00	1.00	0.19		
122.00	123.00	1.00	<0.01		
123.00	124.00	1.00	<0.01		
124.00	125.00	1.00	<0.01		
125.00	126.00	1.00	<0.01		
126.00	127.00	1.00	0.02		
127.00	128.00	1.00	0.03		
128.00	129.00	1.00	0.08		
129.00	130.00	1.00	0.43		
130.00	131.00	1.00	0.86)	
131.00	132.00	1.00	1.39)	
132.00	133.00	1.00	1.24)	
133.00	134.00	1.00	6.20)	
134.00	135.00	1.00	10.60) 9m @ 4.62 g/t	
135.00	136.00	1.00	13.90)	
136.00	137.00	1.00	4.57)	
137.00	138.00	1.00	1.63)	

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138.00	139.00	1.00	1.21)	
139.00	140.00	1.00	0.16		
140.00	141.00	1.00	0.03		
141.00	142.00	1.00	0.02		
142.00	143.00	1.00	0.19		
143.00	144.00	1.00	0.22		
144.00	145.00	1.00	0.83		
145.00	146.00	1.00	0.07		
146.00	147.00	1.00	0.44		
147.00	148.00	1.00	0.03		
148.00	149.00	1.00	1.26	) 2m @ 0.97 g/t	
149.00	150.00	1.00	0.67)	
150.00	151.00	1.00	0.26		
151.00	152.00	1.00	0.24		
152.00	153.00	1.00	0.27		
153.00	154.00	1.00	0.22		
154.00	155.00	1.00	0.92)	
155.00	156.00	1.00	1.11)	
156.00	157.00	1.00	0.64)	
157.00	158.00	1.00	1.13	) 6m @ 1.04 g/t	
158.00	159.00	1.00	1.61)	
159.00	160.00	1.00	0.85)	
160.00	161.00	1.00	0.33		
161.00	162.00	1.00	0.04		
162.00	163.00	1.00	0.13		
163.00	164.00	1.00	0.27		
164.00	165.00	1.00	0.04		
165.00	166.00	1.00	0.07		
166.00	167.00	1.00	<0.01		
167.00	168.00	1.00	<0.01		
168.00	169.00	1.00	<0.01		
169.00	170.00	1.00	<0.01		
170.00	171.00	1.00	<0.01		
171.00	172.00	1.00	<0.01		
172.00	173.00	1.00	<0.01		
173.00	174.00	1.00	0.01		
174.00	175.00	1.00	<0.01		
175.00	176.00	1.00	<0.01		
176.00	177.00	1.00	0.01		
177.00	178.00	1.00	0.12		
178.00	179.00	1.00	0.09		
179.00	180.00	1.00	0.83		
180.00	181.00	1.00	0.13		
181.00	182.00	1.00	0.16		
182.00	183.00	1.00	0.02		
183.00	184.00	1.00	0.99		
184.00	185.00	1.00	0.08		
185.00	186.00	1.00	<0.01		
186.00	187.00	1.00	<0.01		
187.00	188.00	1.00	0.13		

Alternating units of volcanoclastic & granitoid with pyrite

Volcanoclastic (brecciated) + pyrite

188.00	189.00	1.00	0.49		
189.00	190.00	1.00	<0.01		
190.00	191.00	1.00	0.06		
191.00	192.00	1.00	0.27		
192.00	193.00	1.00	0.70		
193.00	194.00	1.00	1.07		
194.00	195.00	1.00	0.02		
195.00	196.00	1.00	<0.01		
196.00	197.00	1.00	<0.01		
197.00	198.00	1.00	<0.01		
198.00	199.00	1.00	0.02		
199.00	200.00	1.00	0.06		
200.00	201.00	1.00	1.24		
201.00	202.00	1.00	0.08		
202.00	203.00	1.00	0.01		
203.00	204.00	1.00	0.01		
204.00	205.00	1.00	0.17		
205.00	206.00	1.00	0.14		
206.00	207.00	1.00	4.15)	
207.00	208.00	1.00	1.76)	
208.00	209.00	1.00	0.25)	
209.00	210.00	1.00	4.98)	
210.00	211.00	1.00	1.34	) 13m @ 1.33 g/t	
211.00	212.00	1.00	0.01)	
212.00	213.00	1.00	0.28)	
213.00	214.00	1.00	0.26)	
214.00	215.00	1.00	0.19)	
215.00	216.00	1.00	0.80)	
216.00	217.00	1.00	0.71)	
217.00	218.00	1.00	0.99)	
218.00	219.00	1.00	1.59)	
219.00	220.00	1.00	0.09		
220.00	221.00	1.00	0.03		
221.00	222.00	1.00	0.08		
222.00	223.00	1.00	0.75		
223.00	224.00	1.00	0.20		
224.00	225.00	1.00	0.03		
225.00	226.00	1.00	0.28		
226.00	227.00	1.00	0.15		
227.00	228.00	1.00	0.03		
228.00	229.00	1.00	0.02		
229.00	230.00	1.00	0.01		
230.00	231.00	1.00	<0.01		
231.00	232.00	1.00	0.01		
232.00	233.00	1.00	<0.01		
233.00	234.00	1.00	0.02		
234.00	235.00	1.00	0.07		
235.00	236.00	1.00	0.12		
236.00	237.00	1.00	0.16		
237.00	238.00	1.00	1.10)	
238.00	239.00	1.00	0.30)	

239.00	240.00	1.00	2.91	) 5m @ 2.00 g/t	
240.00	241.00	1.00	3.76)	
241.00	242.00	1.00	1.93)	
242.00	243.00	1.00	0.08		
243.00	244.00	1.00	0.02		
244.00	245.00	1.00	0.01		
245.00	246.00	1.00	<0.01		
246.00	247.00	1.00	0.03		
247.00	248.00	1.00	0.07		
248.00	249.00	1.00	0.04		
249.00	250.00	1.00	<0.01		
250.00	251.00	1.00	<0.01		
251.00	252.00	1.00	0.02		
252.00	253.00	1.00	<0.01		
253.00	254.00	1.00	1.03		
254.00	255.00	1.00	0.03		
255.00	256.00	1.00	0.02		
256.00	257.00	1.00	0.02		
257.00	258.00	1.00	<0.01		
258.00	259.00	1.00	0.02		
259.00	260.00	1.00	<0.01		
260.00	261.00	1.00	<0.01		
261.00	262.00	1.00	0.06		
262.00	263.00	1.00	0.11		
263.00	264.00	1.00	0.01		
264.00	265.00	1.00	<0.01		
265.00	266.00	1.00	0.01		
266.00	267.00	1.00	3.32		
267.00	268.00	1.00	0.03		
268.00	269.00	1.00	0.02		
269.00	270.00	1.00	0.14		
270.00	271.00	1.00	0.04		
271.00	272.00	1.00	0.31		
272.00	273.00	1.00	0.31		
273.00	274.00	1.00	0.03		
274.00	275.00	1.00	0.01		
275.00	276.00	1.00	2.39	) 2m @ 2.34 g/t	
276.00	276.90	0.90	2.29	)	EOH

0.5 g/t cut off contains not more than 5 consecutive samples <0.5 g/t

Competent Person's Statement

Information in this report that relates to the Namdini Project is based on information compiled by **Mr Paul Abbott**, a full time employee of Cardinal Resources Limited, who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Geological Society of South Africa. Mr Abbott has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Abbott consents to the inclusion in this report of the statements based on his information in the form and context in which it appears.

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Disclaimer

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This Announcement contains summary information about Cardinal, its subsidiaries and their activities which is current as at the date of this Announcement. The information in this Announcement is of a general nature and does not purport to be complete nor does it contain all the information which a prospective investor may require in evaluating a possible investment in Cardinal.

By its very nature exploration for minerals is a high risk business and is not suitable for certain investors. Cardinal's securities are speculative. Potential investors should consult their stockbroker or financial advisor. There are a number of risks, both specific to Cardinal and of a general nature which may affect the future operating and financial performance of Cardinal and the value of an investment in Cardinal including but not limited to economic conditions, stock market fluctuations, gold price movements, regional infrastructure constraints, timing of approvals from relevant authorities, regulatory risks, operational risks and reliance on key personnel and foreign currency fluctuations.

Certain statements contained in this announcement, including information as to the future financial or operating performance of Cardinal Resources and its projects, are forward-looking statements that:

- may include, among other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions;
- are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Cardinal Resources, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; and,
- involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements.

Cardinal Resources disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words 'believe', 'expect', 'anticipate', 'indicate', 'contemplate', 'target', 'plan', 'intends', 'continue', 'budget', 'estimate', 'may', 'will', 'schedule' and similar expressions identify forward-looking statements.

All forward looking statements made in this announcement are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

No verification: Although all reasonable care has been undertaken to ensure that the facts and opinions given in this Announcement are accurate, the information provided in this Announcement has not been independently verified.

JORC CODE 2012 EDITION – TABLE 1
HIGH GRADE GOLD FROM SURFACE AT NAMDINI PROJECT
Section 1 – Sampling Technique and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Nature and quality of sampling is carried out under QAQC procedures as per industry standards, with standards and blanks inserted every 22 samples.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Sample representivity is ensured through carefully logging, with samples selected according to their lithological units.
	Aspects of the determination of mineralisation that are Material to the Public Report.	The determination of mineralisation is not yet known.
	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	HQ core is quartered, with the same quarter consistently sampled. 1m samples are taken irrespective of lithological units. The quarter core samples weigh ~2 kg, which are dried, then crushed and a split portion of <1.5 kg is pulverised to produce a 50 gm charge for fire assay.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	HQ core drilling with a standard tube. Triple tube in saprolite at top of the hole. Core is orientated using Reflex equipment
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Method of recording and assessing core samples was on a hand held Motion F5te Tablet PC using a set of standard templates supplied by Maxwell Geoservices, Perth (Maxwell).
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The measures taken to maximize sample recovery are by measuring core length drilled against core length recovered
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No relationship is known to exist between sample recovery and grade, and no sample bias may have occurred due to preferential loss/gain of any fine/coarse material.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Core samples have been geologically logged to a level of detail to support appropriate future Mineral Resource estimations.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging is qualitative and quantitative. Core is photographed both in dry and wet form.
	The total length and percentage of the relevant intersections logged.	All holes are logged in full.

Criteria	JORC Code Explanation	Commentary
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	HQ core has been drilled, quartered and sampled, with the remaining three quarters of core stored in the original core trays and stacked on shelves under cover in the core shed
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation is completed at SGS Laboratories, Ouagadougou, Burkina Faso. All preparation equipment is flushed with barren material prior to the commencement of sample preparation. The entire sample is dried, crushed to a nominal 2mm using a Jaw Crusher, then <1.5 kg is split using a Jones type riffle. The reject sample is retained in the original sample bag. The split is pulverised in a LM2 grinding mill to a nominal 85% passing 75 micron size fraction. An approximate 200 gram sub-sample split is taken for fire assay with the pulverized residue retained in a plastic bag. The pulverized split is fire assayed by standard procedures with an AAS finish to 10 ppb detection limit. Both the remaining reject and pulverized samples are returned and stored at Cardinal's Bolgatanga premises.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples uses commercial certified reference material (CRM) for standards.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Measures taken to ensure that the core sampling is representative is to sample quarter core at 1m intervals irrespective of lithologies.
Quality of Assay data and laboratory tests	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered appropriate to give an accurate indication of gold mineralisation.
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The pulverized rock sample is weighed and mixed with flux and fused using lead oxide at 1,100°C, followed by cupellation of the resulting lead button (Dore bead). The bead is digested using 1:1 HNO ₃ and HCl and the resulting solution is submitted for analysis.
		<p>The digested sample solution is aspirated into the Flame Atomic Absorption Spectrometer (AAS), aerosolised, and mixed with the combustible gas, acetylene and air. The mixture is ignited in a flame whose temperature ranges from 2,100 to 2,800°C. During combustion, atoms of the gold in the sample are reduced to free, unexcited ground state atoms, which absorb light. Light of the appropriate wavelength is supplied and the amount of light absorbed can be measured against a standard curve.</p> <p>Results have a lower gold detection limit of 10 ppb. The AAS equipment is calibrated with each</p>

Criteria	JORC Code Explanation	Commentary
		<p>job.</p> <p>The analytical technique is industry standard fire assay which is considered to be a total digest of gold.</p>
	<p>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</p> <p>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</p>	<p>No hand held geophysical tools are used.</p> <p>Sample preparation checks for fineness are carried out by the laboratory as part of their internal procedures to ensure the grind size of 85-90% passing 75 micron is being attained. Each batch of 84 samples has 10 laboratory checks (20%), with the grind size varying between 87-99% passing 75 micron, which is acceptable. Laboratory QAQC involves the use of internal lab standards using certified reference material and blanks.</p> <p>Certified reference materials, having a range of values, and in-house blanks are inserted in the ratio of 1:22. No duplicate samples are taken as quarter core samples are submitted for fire assay.</p> <p>External laboratory checks are done on a three monthly basis through Laboratories Quality Services International (LQSI). Recent LQSI checks of Fire Assay analyses on Low Grade Oxide Material produced acceptable levels of accuracy and precision.</p>
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The verification of significant intersections by either independent or alternative company personnel has not occurred.
	The use of twinned holes.	There has been no use of twinned holes.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data was collected on a hand held Motion F5te Tablet PC using a set of standard templates supplied by Maxwell Geoservices, Perth (Maxwell). Daily data was synchronised and digitally captured by Maxwell for validation and compilation into Excel and Access spreadsheets and stored on the Cardinal servers located in Bolgatanga, Ghana, West Africa.
	Discuss any adjustment to assay data.	No adjustments were made to assay data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Accuracy of drill hole collar surveys is +/- 3m using a hand held Garmin GPSmap 62s GPS.
	Specification of the grid system used.	WGS84 Sector 30N, with local grid baseline at 010° True North and lines at 50m to 100m intervals and stations at 50m along lines.
	Quality and adequacy of topographic control.	The quality and adequacy of topographic control is

Criteria	JORC Code Explanation	Commentary
		+/- 3m using a hand held Garmin GPSmap 62s GPS.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Data spacing is 50-100m (northing) and 50-100m (easting).
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The data spacing and distribution is considered to be sufficient to establish a degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.
Orientation of data in relation to geological structure	Whether sample compositing has been applied.	No sample compositing has been applied.
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The orientation of sampling achieves unbiased sampling of possible structures as drilling is orientated normal to the dip and foliation of the deposit.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No orientation based sampling bias has been identified in the data to date.
Sample security	The measures taken to ensure sample security.	The measures taken to ensure sample security are through an independent Ghanaian security contractor. Samples are stored at Cardinal's base camp located at Bolgatanga, Ghana, West Africa under security until collected by SGS Laboratories and transported to their Ouagadougou laboratory in Burkina Faso.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling techniques are of industry standards. Data is audited by Maxwell Geoservices (Perth), who have not made any other recommendations.

Section 2 – Reporting of Exploration Results

(Criteria listed in section 1 will also apply to this section where relevant)

Criteria	JORC Code Explanation	Commentary
Mineral Tenement and Land Status	Type, name/reference number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Namdini Mining Licence is located in NE Ghana. Namdini Mining Limited (NML) holds the mining licence. NML signed a Heads of Agreement with Savannah Mining Ltd (Savannah) to provide "Mining Support" services to NML. Savannah has signed a Heads of Agreement with Cardinal Mining Services Ltd (CMS) to provide "Mining Support" services in relation to the Namdini Mining Licence.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	There are no known impediments to offer "Mining Support" services to Namdini Mining Limited within the Namdini Mining licence area.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	No previous systematic exploration has been undertaken.

Criteria	JORC Code Explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation	<p>The deposit type comprises gold mineralisation within sheared and highly altered rocks containing sulphides (pyrite and arsenopyrite).</p> <p>The geological setting is a Paleo-Proterozoic Greenstone Belt comprising Birimian metavolcanics, volcaniclastics & metasediments located in close proximity to a major 30 km ~N-S regional shear zone with splays.</p> <p>The style of mineralisation is hydrothermal alteration containing disseminated gold-bearing sulphides</p>
Drill hole information	<p>A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:</p> <ul style="list-style-type: none"> • Easting and northing of the drill hole collar • Elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar • Dip and azimuth of the hole • Down hole length and interception depth • Hole length 	A summary of all information is contained within this announcement.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	There has been no exclusion of information.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	No weighting averaging techniques nor cutting of high grades have yet been undertaken as assay results are awaited.
	Where aggregated intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Aggregated intercepts incorporating short lengths of high grade results within the lithological units are calculated to include no more than intervals of 3-5m below grades of <0.5 g/t Au when assay results are received
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values were used for this report.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of exploration results.	The relationship between mineralisation widths and intercept lengths is not yet known.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The geometry of the mineralisation with respect to the drill hole angle is not yet known.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to	Only down hole lengths are reported when assay results are received and true widths of mineralisation are not yet known.

Criteria	JORC Code Explanation	Commentary
	this effect (e.g. 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plane view of drill hole collar locations and appropriate sectional views.	Appropriate locality map, plan view and sections are included in this announcement.
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The assay results of the drill holes NMDD393-725, NMDD391-745 and NMRC389-767 are attached.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<p>The interpretation of the geological observations shown in Figures 1 and 2 are subject to possible change as new information is gathered.</p> <p>No geochemical surveys, bulk sampling, metallurgical, mineralogical or geotechnical assessments were undertaken.</p>
Further Work	<p>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large – scale step – out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	<p>A combination of reverse circulation and diamond drilling is planned, followed by possible additional ground geophysical surveys depending on the results of the drilling.</p> <p>The plan included shows the possible extent of mineralisation based on geological observations and previous assay results. Future drilling is planned north and west within the Namdini Project Area to obtain strike and down dip extensions to the gold mineralisation.</p>