



**Pilbara
Minerals**

...Powering a sustainable energy future

ASX / MEDIA ANNOUNCEMENT

WEDNESDAY 23 JUNE 2021

EXPLORATION AND DEVELOPMENT DRILLING ALONG THE SOUTHERN CORRIDOR AT PILGANGOORA DELIVERS FURTHER EXCEPTIONAL RESULTS

PROGRAM TO PAVE WAY FOR NEW INTEGRATED RESOURCE IN THE SEPTEMBER QUARTER

KEY POINTS

- Strategic exploration and resource extensional drilling program adjacent to the historical Altura tenement boundary identifies further defined zones of high-grade pegmatite mineralisation.
- 10,158 drill metres completed with an extension to the initial program currently underway.
- Further promising assay results received for the first 32 Reverse Circulation holes of the 62-hole program, with select new intercepts indicating:
 - **20m@ 1.83% Li₂O** and 36 ppm Ta₂O₅ from 28m (PLS1328)
 - **12m @ 1.84% Li₂O** and 67 ppm Ta₂O₅ from 5m (PLS1330)
 - **21m @ 1.28% Li₂O** and 62 ppm Ta₂O₅ from 25m (PLS1337)
 - **32m@ 1.44% Li₂O** and 79 ppm Ta₂O₅ from 159m (PLS1337)
 - **44m@ 1.49% Li₂O** and 76 ppm Ta₂O₅ from 146m (PLS1341)
- New near surface pegmatite domain identified, suggesting a lower strip ratio within the potential mine pit inventory of the combined South Pit.
- Drilling continues, with an update to the Pilgangoora Project Mineral Resource on track for delivery in the September Quarter 2021.

Australian lithium producer Pilbara Minerals Limited (**Pilbara Minerals** - ASX: PLS) is pleased to report further significant assay results from the current exploration and resource extension drilling program underway at its 100%-owned Pilgangoora Project in Western Australia.

The drill program is targeting the under-explored region on the tenement boundary adjacent to the former Altura Lithium Operation (now known as the Ngungaju Plant and associated facilities), with the intention of optimising and growing the future pit inventory.

Initial results from the program have identified zones of high-grade pegmatite mineralisation adjacent to the tenement boundary and future South Pit expansion area which is outside of the previously identified Mineral Resource.

Geological modelling is currently underway and on track for the delivery of an updated Pilgangoora Project Mineral Resource (including the compilation and integration of the former Altura Lithium Operations' Mineral Resource) in the September Quarter 2021¹.

¹ Pilbara Minerals is undertaking a review of the JORC Mineral Resource previously stated in the ASX Announcement by Altura Mining Limited dated 9 October 2019 and will aim to release an update to the market in the September Quarter 2021.



Pilbara Minerals' Managing Director and CEO, Ken Brinsden said the ongoing results from the current exploration and drill program will go a long way to realising the full potential that Pilbara Minerals saw in the area adjacent to the old tenement boundary, which was a key influencer of the recent acquisition.

"The wide and near-surface intercepts of relatively high-grade mineralisation will go a long way to expanding our mining envelope and pit inventory of the combined South Pit areas.

"As we work towards a restart at the Ngungaju Plant, the success of this exploration and drill program and the efforts of our team to further integrate both assets means we can be confident in a bright future for the greater Pilgangoora Operation."

Figure 1 - Drill Hole Location Summary Plan

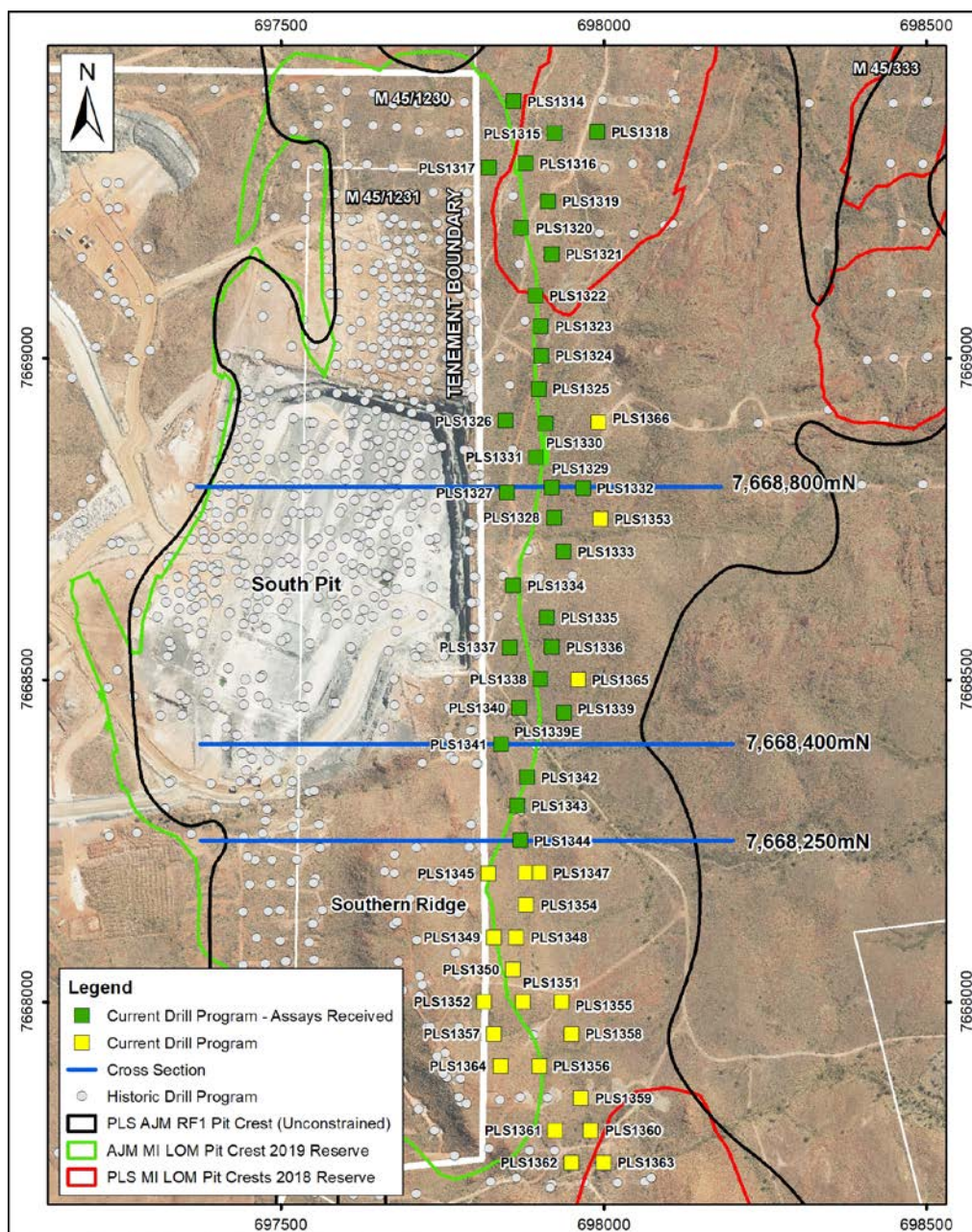




Figure 2 - Cross Section 7,668,800mN

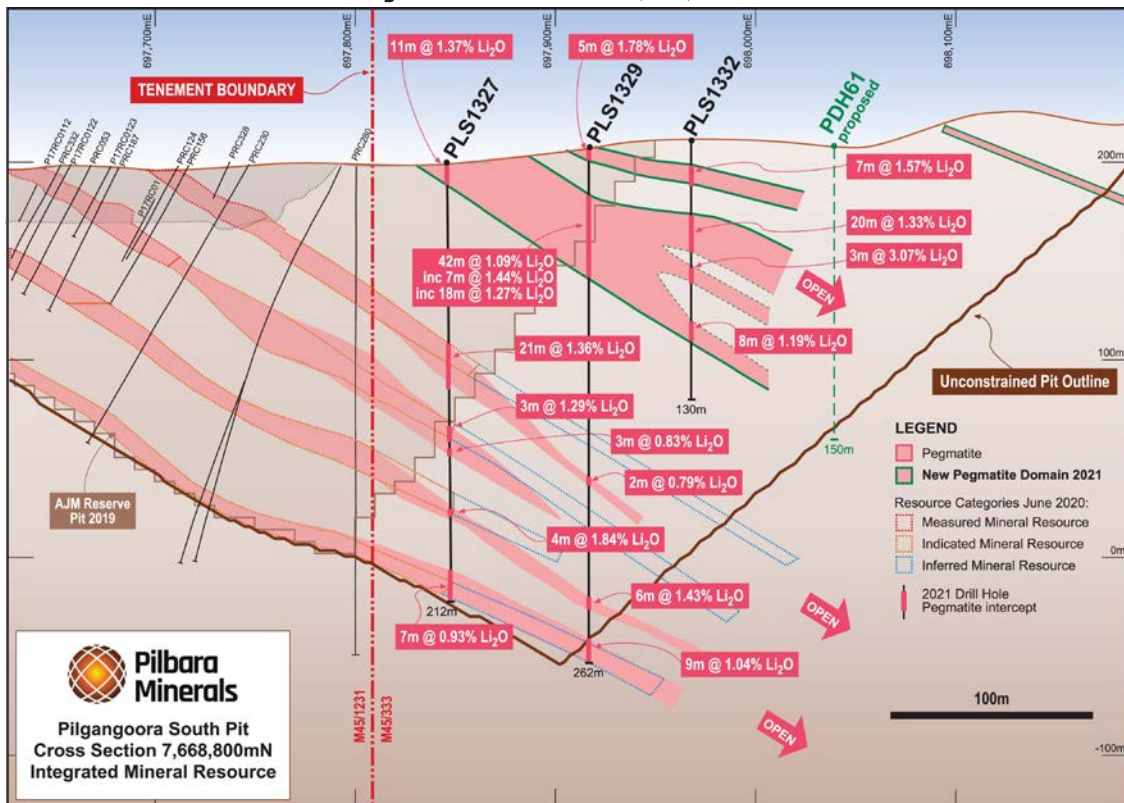


Figure 3 - Cross Section 7,668,400mN

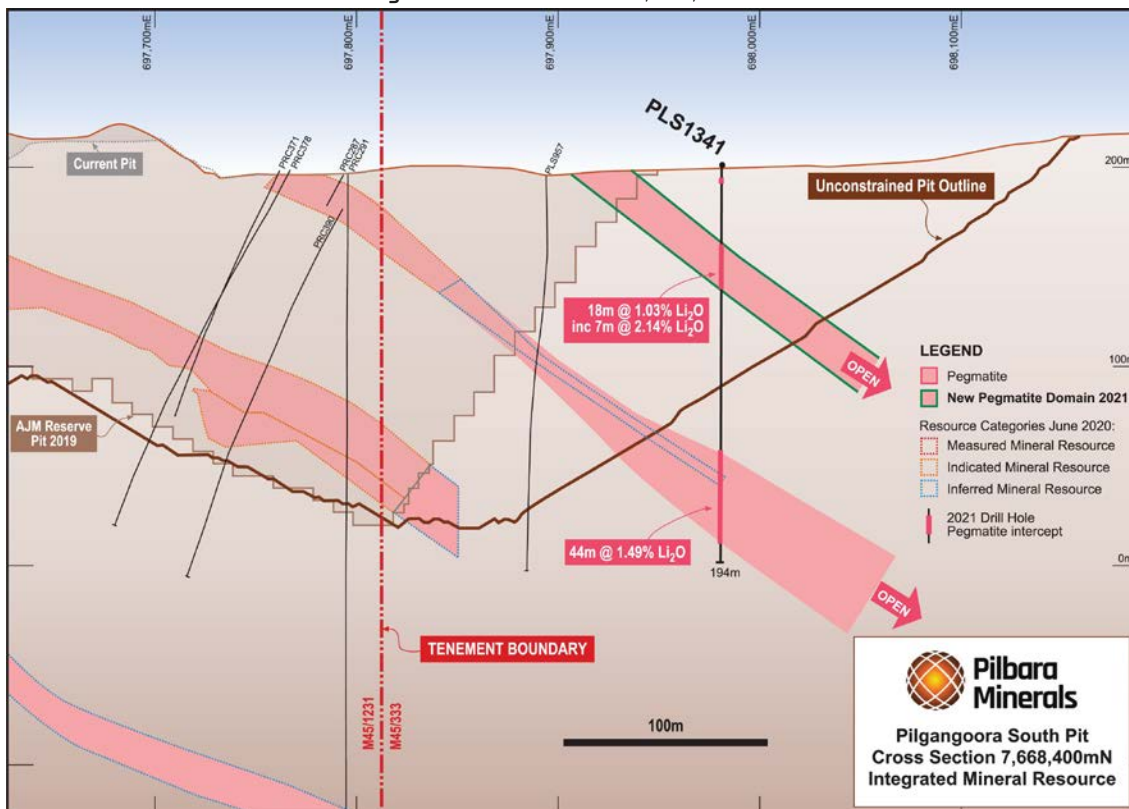
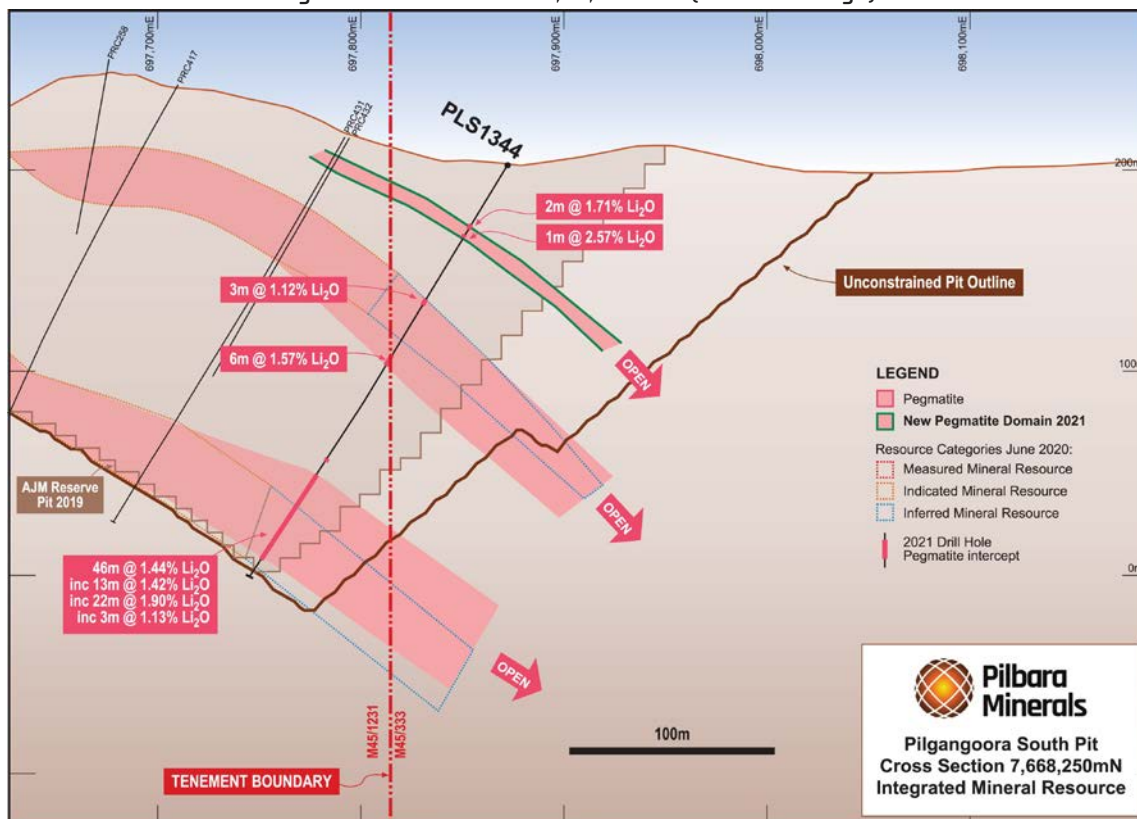




Figure 4 - Cross Section 7,66,8250mN (Southern Ridge)



Release authorised by Ken Brinsden, Pilbara Minerals Limited's Managing Director and CEO.

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MORE INFORMATION

ABOUT PILBARA MINERALS

Pilbara Minerals is the leading ASX-listed pure-play lithium company, owning 100% of the world's largest, independent hard-rock lithium operation. Located in Western Australia's resource-rich Pilbara region, the Pilgangoora Project and Operation produces a spodumene and tantalite concentrate. The significant scale and quality of the operation has attracted a consortium of high quality, global partners including Ganfeng Lithium, General Lithium, Great Wall Motor Company, POSCO, CATL and Yibin Tianyi.

While it continues to deliver a low-cost, quality spodumene to market, Pilbara Minerals is pursuing a growth and diversification strategy to become a sustainable, low-cost lithium producer and fully integrated lithium raw materials and chemicals supplier in the years to come. Through execution of this strategy, Pilbara Minerals is positioned to become a major player in the rapidly growing lithium supply chain, underpinned by increasing demand for clean energy technologies such as electric vehicles and energy storage as the world pursues a sustainable energy future.

COMPETENT PERSONS STATEMENT

The information in this report that relates to Exploration Results and Exploration Targets is based on and fairly represents information and supporting documentation prepared by Mr John Holmes (full-time Exploration and Geology Manager of Pilbara Minerals Limited). Mr Holmes is a shareholder of Pilbara Minerals. Mr Holmes is a member of the Australasian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Holmes consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.



APPENDIX 1 – DRILL HOLE COLLAR TABLE

| HOLE ID | NORTH GDA94 | EAST GDA94 | RL | DIP | AZIMUTH | END OF HOLE DEPTH (M) |
|---------|-------------|------------|-----|-----|---------|-----------------------|
| PLS1314 | 7669399 | 697860 | 200 | -90 | 0 | 132 |
| PLS1315 | 7669349 | 697924 | 209 | -90 | 0 | 168 |
| PLS1316 | 7669302 | 697879 | 210 | -90 | 0 | 148 |
| PLS1317 | 7669296 | 697822 | 204 | -90 | 0 | 114 |
| PLS1318 | 7669351 | 697990 | 218 | -90 | 0 | 225 |
| PLS1319 | 7669243 | 697914 | 223 | -90 | 0 | 191 |
| PLS1320 | 7669202 | 697873 | 225 | -90 | 0 | 170 |
| PLS1321 | 7669161 | 697920 | 217 | -90 | 0 | 198 |
| PLS1322 | 7669097 | 697894 | 216 | -90 | 0 | 193 |
| PLS1323 | 7669049 | 697903 | 208 | -90 | 0 | 205 |
| PLS1324 | 7669004 | 697904 | 205 | -90 | 0 | 222 |
| PLS1325 | 7668952 | 697899 | 205 | -90 | 0 | 216 |
| PLS1326 | 7668902 | 697848 | 202 | -90 | 0 | 198 |
| PLS1327 | 7668790 | 697850 | 199 | -90 | 0 | 212 |
| PLS1328 | 7668752 | 697923 | 200 | -90 | 0 | 282 |
| PLS1329 | 7668799 | 697920 | 206 | -90 | 0 | 262 |
| PLS1330 | 7668898 | 697911 | 210 | -90 | 0 | 240 |
| PLS1331 | 7668847 | 697895 | 207 | -90 | 0 | 244 |
| PLS1332 | 7668798 | 697968 | 211 | -90 | 0 | 130 |
| PLS1333 | 7668699 | 697938 | 202 | -90 | 0 | 240 |
| PLS1334 | 7668647 | 697860 | 201 | -90 | 0 | 273 |
| PLS1335 | 7668597 | 697912 | 214 | -90 | 0 | 228 |
| PLS1336 | 7668551 | 697920 | 209 | -90 | 0 | 90 |
| PLS1337 | 7668551 | 697855 | 202 | -90 | 0 | 198 |
| PLS1338 | 7668501 | 697902 | 204 | -90 | 0 | 207 |
| PLS1339 | 7668449 | 697938 | 200 | -90 | 0 | 250 |
| PLS1340 | 7668457 | 697869 | 195 | -90 | 0 | 206 |
| PLS1341 | 7668400 | 697841 | 199 | -90 | 0 | 194 |
| PLS1342 | 7668349 | 697881 | 203 | -60 | 270 | 222 |
| PLS1343 | 7668304 | 697866 | 200 | -70 | 270 | 226 |
| PLS1344 | 7668250 | 697870 | 202 | -60 | 270 | 236 |
| PLS1345 | 7668199 | 697821 | 211 | -60 | 270 | 110 |
| PLS1346 | 7668199 | 697880 | 204 | -60 | 270 | 139 |
| PLS1347 | 7668198 | 697900 | 204 | -90 | 0 | 185 |
| PLS1348 | 7668100 | 697866 | 211 | -90 | 0 | 182 |
| PLS1349 | 7668101 | 697830 | 214 | -60 | 270 | 133 |
| PLS1350 | 7668051 | 697860 | 224 | -60 | 270 | 166 |
| PLS1351 | 7668000 | 697874 | 219 | -60 | 270 | 180 |
| PLS1352 | 7667992 | 697813 | 230 | -60 | 270 | 160 |



| HOLE ID | NORTH GDA94 | EAST GDA94 | RL | DIP | AZIMUTH | END OF HOLE DEPTH (M) |
|---------|-------------|------------|-----|-----|---------|-----------------------|
| PLS1353 | 7668750 | 697995 | 200 | -90 | 0 | 140 |
| PLS1354 | 7668149 | 697877 | 207 | -60 | 270 | 138 |
| PLS1355 | 7668004 | 697932 | 209 | -60 | 270 | 210 |
| PLS1356 | 7667899 | 697899 | 213 | -90 | 0 | 156 |
| PLS1357 | 7667947 | 697831 | 220 | -60 | 270 | 151 |
| PLS1358 | 7667950 | 697949 | 210 | -60 | 270 | 222 |
| PLS1359 | 7667849 | 697968 | 205 | -60 | 270 | 148 |
| PLS1360 | 7667797 | 697989 | 201 | -60 | 270 | 118 |
| PLS1361 | 7667798 | 697932 | 207 | -60 | 270 | 110 |
| PLS1362 | 7667751 | 697949 | 202 | -90 | 0 | 100 |
| PLS1363 | 7667747 | 698002 | 199 | -90 | 0 | 110 |
| PLS1364 | 7667898 | 697838 | 230 | -90 | 0 | 202 |
| PLS1365 | 7668899 | 697989 | 234 | -90 | 0 | 141 |
| PLS1366 | 7668500 | 697960 | 200 | -90 | 0 | 140 |
| PLS1367 | 7669350 | 698070 | 200 | -90 | 0 | 130 |
| PLS1368 | 7669150 | 697980 | 200 | -90 | 0 | 226 |

Note: Includes all exploration RC holes drilled from 19 March 2021 to 22 June 2021



APPENDIX 2 – DRILL HOLE INTERCEPTS (0.5% Li₂O lower cut-off grade)

| HOLE ID | FROM (M) | TO (M) | THICKNESS (M) | Li ₂ O % | TA ₂ O ₅ (PPM) |
|---------|----------|--------|---------------|---------------------|--------------------------------------|
| PLS1323 | 64 | 70 | 6 | 1.79 | 69.5 |
| PLS1323 | 80 | 89 | 9 | 1.35 | 63.89 |
| PLS1323 | 127 | 131 | 4 | 1.55 | 65.25 |
| PLS1323 | 144 | 149 | 5 | 2.34 | 63 |
| PLS1323 | 168 | 181 | 13 | 1.8 | 55 |
| PLS1323 | 195 | 203 | 8 | 0.83 | 105.63 |
| PLS1324 | 75 | 79 | 4 | 1.08 | 69.5 |
| PLS1324 | 96 | 104 | 8 | 1.57 | 70.25 |
| PLS1324 | 153 | 160 | 7 | 2.45 | 38.57 |
| PLS1324 | 179 | 190 | 11 | 1.9 | 53.55 |
| PLS1324 | 211 | 216 | 5 | 1.1 | 87.6 |
| PLS1325 | 7 | 15 | 8 | 1.29 | 51.75 |
| PLS1325 | 87 | 95 | 8 | 1.2 | 47.38 |
| PLS1325 | 112 | 123 | 11 | 1.74 | 51.36 |
| PLS1325 | 163 | 173 | 10 | 2.04 | 41.6 |
| PLS1325 | 189 | 205 | 16 | 1.86 | 75.81 |
| PLS1326 | 65 | 72 | 7 | 1.56 | 74.86 |
| PLS1326 | 92 | 99 | 7 | 1.84 | 74.86 |
| PLS1326 | 139 | 148 | 9 | 2.34 | 32 |
| PLS1326 | 175 | 190 | 15 | 1.6 | 65.07 |
| PLS1327 | 0 | 11 | 11 | 1.37 | 76 |
| PLS1327 | 93 | 114 | 21 | 1.36 | 90.05 |
| PLS1327 | 138 | 141 | 3 | 1.29 | 69 |
| PLS1327 | 146 | 149 | 3 | 0.83 | 46.33 |
| PLS1327 | 176 | 180 | 4 | 1.84 | 47.5 |
| PLS1327 | 204 | 211 | 7 | 0.93 | 101.14 |
| PLS1328 | 7 | 11 | 4 | 1.18 | 78.5 |
| PLS1328 | 28 | 48 | 20 | 1.83 | 35.6 |
| PLS1328 | 66 | 73 | 7 | 1.37 | 67 |
| PLS1328 | 165 | 173 | 8 | 1.21 | 66.38 |
| PLS1328 | 251 | 253 | 2 | 0.74 | 27.5 |
| PLS1329 | 0 | 5 | 5 | 1.78 | 71.8 |
| PLS1329 | 26 | 33 | 7 | 1.44 | 63.57 |



| HOLE ID | FROM (M) | TO (M) | THICKNESS (M) | Li ₂ O % | TA ₂ O ₅ (PPM) |
|---------|----------|--------|---------------|---------------------|--------------------------------------|
| PLS1329 | 36 | 54 | 18 | 1.27 | 62.5 |
| PLS1329 | 57 | 68 | 11 | 1.02 | 77.64 |
| PLS1329 | 169 | 171 | 2 | 0.79 | 93 |
| PLS1329 | 231 | 237 | 6 | 1.43 | 83 |
| PLS1329 | 246 | 255 | 9 | 1.04 | 113.44 |
| PLS1330 | 5 | 17 | 12 | 1.84 | 66.83 |
| PLS1330 | 21 | 22 | 1 | 0.6 | 180 |
| PLS1330 | 39 | 44 | 5 | 0.77 | 77.6 |
| PLS1330 | 115 | 132 | 17 | 1.78 | 80.65 |
| PLS1330 | 150 | 157 | 7 | 2.01 | 59.71 |
| PLS1330 | 204 | 209 | 5 | 1.96 | 56.4 |
| PLS1330 | 220 | 222 | 2 | 2.09 | 68.5 |
| PLS1330 | 225 | 226 | 1 | 1 | 30 |
| PLS1330 | 229 | 237 | 8 | 2.77 | 63.13 |
| PLS1331 | 7 | 15 | 8 | 1.84 | 43.5 |
| PLS1331 | 27 | 37 | 10 | 1.36 | 41 |
| PLS1331 | 112 | 127 | 15 | 1.78 | 73.73 |
| PLS1331 | 156 | 162 | 6 | 1.76 | 44.17 |
| PLS1331 | 204 | 206 | 2 | 1.19 | 46.5 |
| PLS1331 | 217 | 218 | 1 | 0.73 | 47 |
| PLS1331 | 230 | 237 | 7 | 1.75 | 58.29 |
| PLS1332 | 13 | 20 | 7 | 1.57 | 51.43 |
| PLS1332 | 40 | 60 | 20 | 1.33 | 48.75 |
| PLS1332 | 65 | 68 | 3 | 3.07 | 61.67 |
| PLS1332 | 91 | 99 | 8 | 1.19 | 46.63 |
| PLS1333 | 38 | 39 | 1 | 1.17 | 72 |
| PLS1333 | 52 | 53 | 1 | 1.23 | 115 |
| PLS1333 | 73 | 77 | 4 | 0.83 | 36.75 |
| PLS1333 | 81 | 83 | 2 | 1.68 | 72.5 |
| PLS1333 | 87 | 91 | 4 | 1.01 | 74.25 |
| PLS1333 | 175 | 179 | 4 | 1.41 | 46 |
| PLS1333 | 207 | 208 | 1 | 0.93 | 51 |
| PLS1334 | 11 | 19 | 8 | 1.05 | 96.63 |
| PLS1334 | 22 | 23 | 1 | 0.51 | 2 |



| HOLE ID | FROM (M) | TO (M) | THICKNESS (M) | Li ₂ O % | TA ₂ O ₅ (PPM) |
|---------|----------|--------|---------------|---------------------|--------------------------------------|
| PLS1334 | 73 | 79 | 6 | 0.77 | 61.67 |
| PLS1334 | 156 | 164 | 8 | 1.01 | 123.88 |
| PLS1334 | 169 | 170 | 1 | 0.66 | 56 |
| PLS1335 | 13 | 14 | 1 | 1.45 | 71 |
| PLS1335 | 27 | 28 | 1 | 1.37 | 90 |
| PLS1335 | 34 | 38 | 4 | 1 | 51.25 |
| PLS1335 | 64 | 65 | 1 | 1.52 | 85 |
| PLS1335 | 183 | 200 | 17 | 1 | 80.94 |
| PLS1336 | 3 | 4 | 1 | 0.68 | 56 |
| PLS1336 | 7 | 8 | 1 | 0.66 | 100 |
| PLS1336 | 74 | 87 | 13 | 1.46 | 76.69 |
| PLS1337 | 25 | 46 | 21 | 1.28 | 61.86 |
| PLS1337 | 159 | 191 | 32 | 1.44 | 79.28 |
| PLS1338 | 13 | 19 | 6 | 0.95 | 146.5 |
| PLS1338 | 72 | 73 | 1 | 1.27 | 191 |
| PLS1338 | 76 | 79 | 3 | 0.75 | 74.33 |
| PLS1338 | 185 | 186 | 1 | 1.82 | 98 |
| PLS1338 | 191 | 199 | 8 | 1.1 | 59.75 |
| PLS1339 | 14 | 15 | 1 | 0.6 | 78 |
| PLS1340 | 39 | 42 | 3 | 0.8 | 64.67 |
| PLS1340 | 49 | 57 | 8 | 0.83 | 43.25 |
| PLS1340 | 140 | 162 | 22 | 1.7 | 95.45 |
| PLS1340 | 166 | 168 | 2 | 2.05 | 135 |
| PLS1340 | 177 | 181 | 4 | 0.85 | 108 |
| PLS1340 | 185 | 196 | 11 | 0.79 | 67.73 |
| PLS1340 | 199 | 200 | 1 | 1.01 | 35 |
| PLS1341 | 41 | 48 | 7 | 2.14 | 79.43 |
| PLS1341 | 57 | 59 | 2 | 1.45 | 49.5 |
| PLS1341 | 146 | 190 | 44 | 1.49 | 76.11 |
| PLS1342 | 69 | 75 | 6 | 1.81 | 51 |
| PLS1342 | 78 | 80 | 2 | 1.29 | 66.5 |
| PLS1342 | 86 | 87 | 1 | 2.46 | 20 |
| PLS1342 | 165 | 171 | 6 | 1.16 | 40.5 |
| PLS1342 | 174 | 180 | 6 | 1.22 | 48 |



| HOLE ID | FROM (M) | TO (M) | THICKNESS (M) | Li ₂ O % | TA ₂ O ₅ (PPM) |
|---------|----------|--------|---------------|---------------------|--------------------------------------|
| PLS1342 | 184 | 187 | 3 | 1.16 | 28.33 |
| PLS1342 | 191 | 193 | 2 | 0.67 | 50.5 |
| PLS1342 | 197 | 199 | 2 | 1.04 | 57 |
| PLS1342 | 203 | 208 | 5 | 1.25 | 43.8 |
| PLS1342 | 215 | 219 | 4 | 0.79 | 76.25 |
| PLS1343 | 32 | 34 | 2 | 2.64 | 85.5 |
| PLS1343 | 69 | 93 | 24 | 1.38 | 58.67 |
| PLS1343 | 172 | 181 | 9 | 1.78 | 73.44 |
| PLS1343 | 184 | 197 | 13 | 1.37 | 67.38 |
| PLS1343 | 201 | 203 | 2 | 0.94 | 39 |
| PLS1343 | 207 | 209 | 2 | 1.51 | 54 |
| PLS1343 | 213 | 217 | 4 | 1.05 | 79.5 |
| PLS1344 | 34 | 36 | 2 | 1.71 | 31.5 |
| PLS1344 | 40 | 41 | 1 | 2.57 | 85 |
| PLS1344 | 82 | 85 | 3 | 1.12 | 48.67 |
| PLS1344 | 108 | 114 | 6 | 1.57 | 72.33 |
| PLS1344 | 185 | 198 | 13 | 1.42 | 153.08 |
| PLS1344 | 203 | 225 | 22 | 1.9 | 60.77 |
| PLS1344 | 228 | 231 | 3 | 1.13 | 61.67 |

Note: All Intercepts as at 22 June 2021

JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

| CRITERIA | JORC CODE EXPLANATION | COMMENTARY |
|-----------------------------------|---|--|
| <p>Sampling techniques</p> | <p><i>Nature and quality of sampling (e.g. 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.</i></p> | <p>Pilbara Minerals Limited (PLS) has completed 62 exploration RC drill holes for 10,158m as at 22 June 2021.</p> |
| | <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> | <p>RC holes were sampled every metre, with samples split on the rig using a cyclone splitter. The sampling system consisted of a rig mounted cyclone with cone splitter and dust suppression system. The cyclone splitter was configured to split the cuttings at 85% to waste (exploration RC holes to be captured in 600mm x 900mm green plastic mining bags) and 15% to the sample port in draw-string calico sample bags (10-inch by 14-inch).</p> |
| | <p><i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i></p> | <p>Exploration drill holes were all RC, with samples split at the rig, samples are then sent to Nagrom laboratory in Perth and analysed for a suite of multi-elements. Analysis was completed by XRF and ICP techniques.</p> |

| CRITERIA | JORC CODE EXPLANATION | COMMENTARY |
|------------------------------|--|--|
| Drilling techniques | <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).</i> | Exploration RC Drilling was completed by Mt Magnet Drilling utilising an RCD300-2 track mounted drilling rig with a truck mounted booster & auxiliary compressor (900cfm/350psi) coupled to a V8 booster up to 1000psi. Drilling used a reverse circulation face sampling hammer. The sampling system consisted of a rig mounted cyclone with cone splitter and dust suppression system. |
| Drill sample recovery | <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> | Sample recovery was recorded as good for RC holes. |
| | <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> | Whilst drilling through the pegmatite, rods were flushed with air after each 6 metre interval. |
| | <i>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.</i> | Samples were dry and recoveries are noted as “good.” |
| Logging | <i>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.</i> | 1m samples were laid out in lines of 20 or 30 samples with cuttings collected and geologically logged for each interval and stored in 20 compartment plastic rock-chip trays with hole numbers and depth intervals marked (one compartment per 1m). Geological logging information was recorded directly onto digital logging system (OCRIS) and information validated and transferred electronically to Database administrators in Perth. The rock-chip trays are stored on site at Pilgangoora in a shelved 40 ft sea container. |
| | <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> | Logging has primarily been quantitative. |
| | <i>The total length and percentage of the relevant intersections logged.</i> | The database contains lithological data for all holes in the database. |

| CRITERIA | JORC CODE EXPLANATION | COMMENTARY |
|---|--|---|
| Sub-sampling techniques and sample preparation | <p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> | <p>RC samples were generally dry and split at the rig using a cyclone splitter, which is appropriate and industry standard.</p> |
| | <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> | <p>Samples have field duplicates, field standards and blanks as well as laboratory splits and repeats.</p> |
| | <p><i>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.</i></p> | <p>Field duplicates were taken approximately every 20m, and standards and blanks every 50 samples.</p> |
| | <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p> | <p>Drilling sample sizes are considered to be appropriate to correctly represent the tantalum and lithium mineralization at Pilgangoora based on the style of mineralization (pegmatite) and the thickness and consistency of mineralization.</p> |
| Quality of assay data and laboratory tests | <p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> | <p>Samples were submitted to Nagrom Laboratories in Perth and analysed for a suite of 25 elements. Samples were subject to a sodium peroxide fusion and analysed using ICPOES and ICPMS techniques.</p> |
| | <p><i>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.</i></p> | <p>No geophysical tools were used to determine any element concentrations used in this resource estimate.</p> |
| | <p><i>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.</i></p> | <p>Duplicates of the samples were taken at twenty metre intervals with blanks and standards inserted every 50m. Comparison of duplicates by using a scatter chart to compare results show the expected strong linear relationship reflecting the strong repeatability of the sampling and analysis process.</p> |

| CRITERIA | JORC CODE EXPLANATION | COMMENTARY |
|--|---|--|
| Verification of sampling and assaying | <p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> | <p>Drilling contains QC samples (field duplicates, blanks and standards plus laboratory pulp splits, and SGS internal standards), and have produced results deemed acceptable.</p> <p>No diamond twins were carried out during this drilling campaign.</p> |
| | <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> | <p>An electronic database containing collars, surveys, assays and geology is maintained by Trepanier Pty Ltd, an Independent Geological consultancy.</p> |
| Location of data points | <p><i>Discuss any adjustment to assay data.</i></p> <p><i>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.</i></p> | <p>Li was converted to Li₂O for the purpose of reporting. The conversion used was $Li_2O = Li \times 2.153$</p> <p>Holes were surveyed using DGPS in GDA94, Zone 50. Down hole surveying of drill holes was conducted using a Gyro tool. Measurements were recorded at the bottom of each hole and every 10m up hole for vertical holes and continuous readings for angle holes. Drill hole collar locations were surveyed at the end of the program by a differential GPS (DGPS).</p> |
| | <p><i>Specification of the grid system used.</i></p> | <p>The grid used was MGA (GDA94, Zone 50)</p> |
| Data spacing and distribution | <p><i>Quality and adequacy of topographic control.</i></p> <p><i>Data spacing for reporting of Exploration Results.</i></p> | <p>The topographic surface used was supplied by Pilbara Minerals. Drilling spacings for the exploration RC holes varied between 50m to 75m apart.</p> |
| | <p><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity</i></p> | <p>The interpretation of the mineralised domains are supported by a moderate drill spacing, plus both geological zones and assay grades can be interpreted with confidence.</p> |

| CRITERIA | JORC CODE EXPLANATION | COMMENTARY |
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| | <i>appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> | |
| | <i>Whether sample compositing has been applied.</i> | No compositing |
| Orientation of data in relation to geological structure | <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> | The mineralisation dips approximately 45-60 degrees at a dip direction of 090 degrees The drilling orientation and the intersection angles are deemed appropriate. |
| | <i>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.</i> | No orientation-based sampling bias has been identified. |
| Sample security | <i>The measures taken to ensure sample security.</i> | Chain of custody for PLS holes were managed by PLS personnel. |
| Audits or reviews | <i>The results of any audits or reviews of sampling techniques and data.</i> | Sampling techniques for historical assays have not been audited. The collar and assay data have been reviewed by checking all of the data in the digital database against hard copy logs. All PLS assays were sourced directly from Nagrom laboratory. |

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

| CRITERIA | JORC CODE EXPLANATION | COMMENTARY |
|--|--|--|
| Mineral tenement and land tenure status | <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites</i> | PLS owns 100% of tenements M45/1256, M45/333, M45/511 and M45/1259 |
| | <i>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.</i> | No known impediments. |

| CRITERIA | JORC CODE EXPLANATION | COMMENTARY |
|--|---|---|
| Exploration done by other parties | <i>Acknowledgment and appraisal of exploration by other parties.</i> | Talisson completed RC holes in 2008 GAM completed RC holes between 2010 and 2012. Altura completed holes between 2010 and 2018 |
| Geology | <i>Deposit type, geological setting and style of mineralisation.</i> | The Pilgangoora pegmatites are part of the later stages of intrusion of Archaean granitic batholiths into Archaean metagabbros and metavolcanics. Tantalum mineralisation occurs in zoned pegmatites that have intruded a sheared metagabbro. |
| Drill hole Information | <p><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes, including easting and northing of the drill hole collar, elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth plus hole length.</i></p> <p><i>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.</i></p> | Refer to Appendix 2 |
| Data aggregation methods | <p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p><i>Where aggregate 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</i></p> | Exploration results have been received for 32 drill holes - PLS1314 to PLS1344. Results for hole PLS1314 to PLS1322 have been previously reported. |

| CRITERIA | JORC CODE EXPLANATION | COMMENTARY |
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| | <p><i>some typical examples of such aggregations should be shown in detail.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p> | |
| <p>Relationship between mineralisation widths and intercept lengths</p> | <p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></p> | <p>Down hole intercepts have been reported and are tabled in APPENDIX 2. Reported intercepts are not true width. Cross sections illustrate the modelled pegmatite domains and intersections.</p> |
| <p>Diagrams</p> | <p><i>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 plan view of drill hole collar locations and appropriate sectional views.</i></p> | <p>See Figure 1. Cross sections showing selected holes from the program are presented as Figures 2 to 4.</p> |
| <p>Balanced reporting</p> | <p><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></p> | <p>Comprehensive reporting of drill details has been provided in Appendix 1</p> |
| <p>Other substantive exploration data</p> | <p><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; 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.</i></p> | <p>All meaningful & material exploration data has been reported.</p> |
| <p>Further work</p> | <p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> | <p>The aim is to upgrade the existing JORC compliant resource calculation.</p> |

| CRITERIA | JORC CODE EXPLANATION | COMMENTARY |
|----------|---|------------|
| | <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p> | |