Exploration Growth Strategy

- Dynamic multi-pronged exploration strategy designed to quickly establish additional ore sources, increase production significantly above 100koz pa, extend mine-life and leverage existing infrastructure

- Echo’s tenements have yielded 4Moz of gold production historically, the tenements offer substantial upside to the current 1.7Moz Mineral Resource and contain a combination of highly prospective greenfields, brownfields and advanced targets including:

1. The Hadrian Trend corridor – adjacent to Northern Star Resource’s 2018 Ramone discovery
   - Echo has completed geophysical interpretation and geochemical sampling, identifying numerous walk-up targets
   - First pass drilling comprising 8,800m of air core drilling will commence in May 2019

2. Bronzewing underground mine – A Jewel in the Crown
   - Limited drilling by Great Central Mines in 1994 identified two areas of structural repetition within 500m of the historic Bronzewing deposit which produced 2.3Moz
   - No drilling in these areas since 1994
   - Historic drill results include 5m @ 32.9 g/t Au from 192m (GCMBWRC516) and 2m @ 46.8 g/t from 57m (GCMBWRC1471)
   - Drill testing will commence in the 3rd quarter of 2019

3. Lotus underground mine – Opportunity Unfolds
   - Newmont ceased mining in 2003 due to the low gold price below A$600/oz
   - The Lotus was mined to 480m below surface at a grade of 7g/t, mineralisation continues at depth and has been modeled to 660m below surface
   - Modelling also shows the potential for a series of repetitious pods of mineralisation
   - Drill testing will commence in the 3rd quarter of 2019

4. Resource extension drilling at Mt Joel and Corboys deposits to support future mine planning
Exploration Growth Strategy

As outlined in the Yandal Gold Project BFS and Growth Strategy\(^1\) release on 23 April 2019, Echo Resources Limited (ASX: EAR) (Echo or the Company) is focused on:

- Enhancing the already strong forecast returns of the Yandal Gold Project (Project) by investing in near term resource conversion and focused exploration to further improve the production profile and extend the mine life ahead of future production; and
- Advancing discussions regarding regional asset and corporate consolidation

The exploration growth strategy is designed to realise additional value from the 1,600km\(^2\) of contiguous and highly prospective tenements in the world class yet underexplored Yandal Greenstone Gold belt in Western Australia, all in close proximate to Echo’s existing production infrastructure.

The exploration strategy will be led by Mr Travis Craig who was appointed as the General Manager Geology in January 2019 and has established an experienced new team since then. Travis is a highly experienced geologist with over 25 years of experience in the gold sector specialising in exploration, has a strong track record of discoveries and resource development at a number of premier Australian operations. Travis has considerable experience in targeting and developing deeper resources having explored and developed the initial deep resource for the Gwalia deposit down to 1,600 meters below surface.

This new geological team, complimented with external geological consultants, have ranked and prioritised key targets within the tenement package that will form the focus of exploration. This strategy has four key objectives:

1. **Greenfields** - Exploring the highly prospective greenfields granite hosted targets of the Hadrian Trend;

2. **Brownfields** - Exploring brownfields targets in our highly prospective tenement package including targets in close proximity to historic high-grade, multi-million-ounce underground mines;

3. **Advanced Projects** - To rapidly progress the largest and most advanced projects to increase the Mineral Resource and to convert to Ore Reserves to extend the life of mine of the Project; and

4. **Target Generation** - To undertake a thorough study to identify any gaps in tenement-wide datasets and develop a full pipeline of gold targets to realise the full potential of the Echo tenement package.

Commenting on the Exploration Growth Strategy, Managing Director Victor Rajasooriar said: “Echo controls one of the most attractive gold exploration land packages in Australia with clear multi-million-ounce potential.

“The upcoming first-pass drilling of the 20km long Hadrian Trend and testing of key structural targets adjacent to the prolific Bronzewing and Lotus underground mines have the potential to significantly transform the Yandal Gold Project.

“Our exploration strategy aims to crystallise the substantial upside we see to the current 1.7Moz resource based on the rich endowment of our tenements and the exciting untested potential of areas like the Hadrian Trend.”

\(^1\)See ASX Announcement “Yandal Gold Project BFS & Growth Strategy”, 23 April 2019, Echo Resources Limited is not aware of any new information or data that materially affects the information included the previous announcement and all material assumptions and technical parameters underpinning Bankable Feasibility Study in the previous announcement continue to apply and have not materially changed.
OVERVIEW

Echo’s exploration activities during the past 12 months have largely focused on early stage target generation, particularly within the Hadrian Trend, plus resource drilling at the Mt Joel series of deposits.

1. Initial aircore (AC) drilling of the highly prospective Hadrian Trend target is scheduled to begin next month. The 20km long, northwest trending corridor extends from Echo’s Julius deposit in the south and beyond Northern Star Resources’ cluster of mineralisation including the Ramone operating mine in the north. AC drilling commencing in May 2019 will help refine targets for expected reverse circulation (RC) drilling in the second half of 2019. Recent exploration work by Northern Star Resources has included diamond drilling at the Ramone deposit to confirm the underground potential and RC programmes at the Marley-Ziggy, Mosely and Redding prospects targeting extensions to the previously defined mineralisation. See Figures 2, 3 & 4.

2. Work carried out by the Echo geological team shows that the historical Bronzewing and Lotus mines are highly prospective for parallel systems of high grade mineralisation. These deposits were previously mined in the 1990’s and eventually concluded in 2003 during a depressed gold price below A$600/oz with limited exploration carried out since then. Great Central Mines Ltd reported several high-grade intersections approximately 500m from the main body of the Bronzewing underground mine in 1994 in an area that Echo believes contains structural repeats of the high-grade Discovery and Central Zones at Bronzewing. No further drilling has been undertaken since 1994. Echo is planning a detailed structural review of the Bronzewing and Lotus project areas with drilling expected in Q3 and Q4 of 2019.

3. The drilling completed at Mt Joel (70% Echo) in late 2018 and early in 2019 returned a series of shallow intersections of high grade mineralisation. This drilling has increased the geological understanding of the controls of the mineralisation and the regional and local structures within the Mt Joel project area. Additional drilling is planned Q3 2019 to test new target areas.

4. Corboys has an existing 125Koz Mineral Resource that is located 35 kilometers north of Bronzewing and remains open at depth and along strike. Previous operators had carried out a feasibility study with a view to mining. Echo geological team has identified opportunities to expand and extend the Mineral Resource and additional RC & diamond drilling is planned in the 3rd quarter.

5. Echo is also planning a complete review of the geophysical and geochemical datasets; this work will put Echo in a strong position to identify and generate quality targets to advance exploration and build the pipeline to discover gold resources in excess of multi-million ounces from the Echo tenement package.
GREENFIELDS EXPLORATION

The Company’s tenements are highly prospective and present numerous greenfields opportunities. The targets include underexplored areas, some of which have only been granted native title access in March 2019.

The greenfields targets present the Company with the opportunity to discover significant sized high-grade deposits focused on the following two areas:

- Hadrian Trend; and
- Mt Joel project area

Hadrian Trend

The Hadrian Trend represents one of the most prospective exploration opportunities within the Yandal Gold Project considering the scale of the opportunity, geological prospectivity and lack of historical exploration.

The Hadrian Trend is a 20km long, northwest trending corridor that extends from Echo’s Julius deposit in the south and beyond Northern Star Resources’ cluster of mineralisation in and around their Ramone operating mine in the north (see Figure 1).

Recent ground-based gravity survey completed by Echo highlights the corridor as a gravity low which is interpreted to represent a major shear zone within the Yandal Greenstone Belt that has been intruded by granitic bodies. This corridor has long been recognised as an area that has seen multiple fluid, thermal and granite intrusive events.

Importantly, syenitic and mafic granites are interpreted to have intruded along this structure and have been shown to have an important genetic link with orogenic gold deposits. As such, defining the geochemistry and timing of the granitic rocks within the belt and integrating this with a broader lithostructural framework will be critical to exploring this genuine greenfields area.

The north east (NE) trending structures in the region are seen as one of the key control features in exploring for gold mineralisation along this trend. This is evidenced by the Ramone deposit and the Julius deposits both being located proximal to NE structures (see Figure 2).

Geophysical interpretation reveals a significant number of NE structures that transgress the granite host rock within the Echo held tenements, and this results in numerous exciting target zones for immediate exploration.

The granting of a native title agreement in the March quarter 2019 was an important milestone for Echo as it allows exploration work, including drilling, to be conducted on tenements which have only been lightly explored since the 1990s.

The interpretation of recently completed ground based gravity survey and first-pass geochemical sampling of historical drill spoils has been completed to assist in building geological understanding and framework of the Hadrian Trend area.

First pass drilling comprising approximately 8,800m of AC drilling will begin in May 2019. The drilling program is designed as fence lines of angled AC drill holes that are orientated perpendicular to the gold mineralisation controlling NE structures.

Additional drilling will be designed to follow up any identified gold mineralisation discovered in the first pass program.
Figure 1. Hadrian Trend target map – Plan View.
The aerial photographs below were taken on 8 April 2019 and show Northern Star’s cluster of mineralisation including the Ramone operating mine adjacent to Echo’s tenure. Drill lines extend directly up to Echo’s tenement boundary. Recent geochemical sampling carried out on the Company’s tenement indicates continuity of mineralisation from the NST/EAR tenement boundary and this is the target of the first drilling program in May 2019 (See Figure 3 and 4).

Figure 2. Hadrian Trend Northern target map – Plan View.
Figure 3. Hadrian Northern Area Aerial Photograph

Figure 4. Hadrian Northern Area Aerial Photograph
Mt Joel Project Area (70% Echo)

The Mt Joel Project is an extremely well mineralised area that strikes north-south and is located only 12km north of the Bronzewing processing facility. The area comprises more than ten known gold deposits within a 10km strike length along two parallel north-south (NS) striking D1-D2 shear zones.

Recent geological interpretation of geophysical datasets has revealed a large amount of structural complexity within the project area. The majority of the gold mineralisation occurs on the NS striking D1-D2 shear zones and are located proximal to the regionally pervasive NE trending cross cutting structures (see Figure 5).

Gold occurs in quartz veins and vein selvages associated with pyrite +/- chalcopyrite. Mineralisation occurs predominantly in the oxide-transition zone extending from the base of transported material to the base of weathering, a zone more than 100m deep in places.

Echo has identified four zones along the host D1-D2 shear zones that are proximal to the intersection of the NE trending structures and these are seen as prime exploration targets zones for gold mineralisation. These four target zones have in excess of 4km of strike length potential.

Echo plans to conduct a detailed interpretation of the geophysics to gain higher resolution on the location of the structures in the Mt Joel project area. Following the geophysical work, the identification and prioritisation of drill targets will be formulated and scheduled to be drill tested.

Figure 5. Mt Joel target map – Plan View
BROWNFIELDS EXPLORATION

Bronzewing Deposit

Mineralisation was discovered at Bronzewing by Great Central Mines Limited (GCM) in 1990. During a drilling program of 69 holes using pastoral fence lines for access, GCM intersected significant gold values in hole 65 over what is now the Discovery zone of the Bronzewing gold mine. This included 4m at 1.8 g/t Au from 44m and 12m at 1.1 g/t Au from 72m with some buried laterite. Only two further holes detected any gold values above 0.1 g/t Au with a maximum of 0.3 g/t Au.

Open pit mining commenced in 1994, the existing Bronzewing plant was constructed and the first gold was poured in November 1994. Underground mining commenced in 1995 and concluded in 2003 at a depth of 560m below surface. Gold production over the final five years from the underground operations averaged 250,000oz per annum with a total of 11Mt at 5.1g/t Au, producing 1.8Moz. Newmont closed the operation in 2003 when the gold price was less than A$600 per ounce.

Total production from the Bronzewing operation (open pit and underground) was 19Mt at 3.8 g/t Au, producing 2.3Moz.

The Bronzewing deposit is the largest system of gold mineralisation within the Echo tenure. Bronzewing is highly complex with multiple controls on mineralisation including multiple lithological units and structures resulting in numerous lode geometries. With a system this large and complex there is potential for significant gold mineralisation to exist beyond the currently defined extents of the deposit.

The geology of the mine sequence at Bronzewing is dominated by mafic to ultramafic rocks, intruded by dolerite, granodiorites and porphyries. The deposit is located on the western limb of a regional scale, south-plunging fold, termed the Hook Anticline. The mine sequence strikes northerly, is steeply dipping, and plunges towards the west. Gold occurs both in veins and wall rock. All known economic mineralisation is within the quartz veins and based on crosscutting relationships and timing with respect to deformation. Three sets of auriferous quartz-carbonate-albite-pyrrohotite veins have been recognised.

Two dominant ore bodies, known as the Central and Discovery Zones, as well as several subsidiary ore bodies have been historically mined. Both Central and Discovery Shoots have similar geometries. In general, both plunge steeply to the north north-east (NNE) in the upper levels and to the south south-east (SSE) in the lower levels. Considerable geometric variation in the shape of the shoots and their mineralised envelope exists with depth.

Figure 6. Bronzewing target map – Long Section View.
Echo’s interpretation of geophysics shows that there are several sets of NE structures that appear to play an important part in the gold mineralisation. It is observed that the Discovery lode is primarily bound by a set of NE structures and the same can be said for the Central lode (see Figure 6 and 7). A set of NE structures is interpreted approximately 500m directly north of the current Bronzewing deposit. The area within the NE structure is poorly drilled but contains a cluster of significant high-grade gold mineralisation with drilling intercepts including:

- 2m @ 34.3 g/t Au from 154m (GCMBWRCD1792)
- 2m @ 46.8 g/t Au from 57m (GCMBWRC1471)
- 2m @ 8.6 g/t Au from 130m (GCMBWRC1472)
- 5m @ 32.9 g/t Au from 192m (GCMBWRCDS16)

This drilling was completed in 1994 and no follow up drilling has taken place.

Further north, it is interpreted to be another structural repeat with a set of NE structures bounding a cluster of historic drilling. Echo’s investigation of these loosely spaced drill holes shows multiple wide intercepts of greater than 1 g/t gold mineralisation.

It is planned to conduct detailed geophysical structural interpretation of the datasets along with lithological mapping of the existing drill holes to enhance the resolution on the defined structural repeat corridors. Once this work has been completed the targeted corridors will be drill tested with a combination of RC and diamond drilling.

![Figure 7. Bronzewing target map – Plan View](For personal use only)
**Lotus**

The Lotus deposit is located 9km from the Bronzewing processing facility and was mined initially by open pit followed by an underground operation. The depth of mining at Lotus reached approximately 480m when it was put on care and maintenance by Newmont in 2003 due to a low gold price. Gold mineralisation continues at depth and is modelled to 660m below surface. Lotus underground operations processed 1.4Mt at 6.7g/t Au for 295Koz.

Total production from the Lotus deposit (open pit and underground) was 2.2Mt at 5.5 g/t Au, producing 387Koz.

The Lotus-Orelia mineralised system is bound by north-south shears on either side of the mineralisation and it has a currently known strike extent exceeding 2,700m. Echo’s Leapfrog modelling of the system shows a series of repetitious plunges of mineralisation presenting as pods of gold mineralisation. There are three well defined mineralisation pods in the Orelia deposit and two defined pods in the Lotus deposit (see Figure 8).

The Lotus orebody is a dolerite hosted, subvertical set of laminated quartz veins. To the east, the dolerite unit comes into contact with a package of volcanic rocks consisting of cherty tufts and basalts. The laminated veins average up to 60g/t Au and vary in size from 10cm to 3m as the vein pinches and swells. There are also a series of south plunging, isoclinal shear folds that increase the lode width significantly in places. Vein grade is not related to width, but mined grade is increased in these areas as dilution is minimised. The lode is cut by many intermediate dykes ranging in thickness from 10cm to 20m. Some of these dykes may offset the lode by up to 5m. The overall strike length of the known vein system at Lotus is 1000m.

Echo believes there is the potential for additional pods of mineralisation to be discovered beneath the Lotus main lode as it is currently untested.

In the first half of 2019, Echo is scheduled to commission a detailed geological structural study on the Lotus deposit that will involve re-logging of diamond core. This will provide a significantly enhanced understanding of the structural controls of the deposit and will result in a 3D geological model that will assist Echo in better defining the target drilling.

Drill testing will commence in the second half of 2019 with drill targets designed from the 3D geological model. Drilling is expected to comprise a number of well targeted diamond drill holes to demonstrate the depth potential of the known mineralisation and to drill test for the repeated third pod of mineralisation.

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**Figure 8. Lotus target map – Long Section View.**
ADVANCED PROJECTS

There is significant scope to define new Mineral Resources and potentially convert them to Ore Reserves around the large, known deposits within Echo’s Yandal Project. The key areas of focus are the most advanced deposits on the Echo tenure that include the Mt Joel cluster of deposits, and Corboys.

Mt Joel

Mt Joel is located approximately 12 kilometres northeast of the Bronzewing Processing Hub with a cluster of deposits that have been identified to occur along litho-structural trends within discontinuous gold mineralisation extending over 8 kilometres. A significant amount of drilling has been completed over Mt Joel with near surface mineralisation spread over numerous projects. Gold occurs in quartz veins and vein selvedges associated with pyrite +/- chalcopyrite. Mineralisation occurs predominantly in the oxide-transition zone extending from the base of transported material to the base of weathering, a zone more than 100m deep in places.

The main deposits identified to date include; Taipan, Tiger and Adder (Figure 9, 10 and 11).

A JORC 2012 mineral resource model is currently being developed and will be announced in Q2 2019. Additional drilling is planned to extend and improve the confidence in each of the three deposits for generation of potential ore reserves to add to the LOM.

Figure 9. Mt Joel Project Map (Bouguer Gravity Image)
RC drilling completed on these deposits in 2018/2019 returned outstanding results\(^2\) that included:

- 16m @ 24.10 g/t Au from 26m (MJRC119)
- 27m @ 11.43 g/t Au from 45m (MJRC048)
- 4m @ 11.10 g/t Au from 12m (MJRC038)
- 11m @ 5.92 g/t Au from 29m (MJRC125)
- 15m @ 4.12 g/t Au from 80m (MJRC018)
- 8m @ 3.46 g/t Au from 27m (MJRC122)
- 4m @ 5.67 g/t Au from 85m AND 5m @ 6.89 g/t Au from 93m (MJRC024)

\(^2\)Refer to announcements titled “Outstanding Drilling Results at the Mount Joel Gold Project” dated 7 February 2019
Corboys

Corboys is located 35 kilometres north of Bronzewing on a granted mining lease and was acquired by Echo during the Metaliko Resources Limited (Metaliko) acquisition in January 2017.

Metaliko drilled 83 RC holes in 2015 and released a Mineral Resource Estimate of 2.14Mt at 1.82g/t Au for 125Koz Au (refer to Appendix 2 in the announcement titled BFS - Yandal Gold Project & Growth Strategy, 23 April 2019). The outcropping Corboys deposit (Figure 12) has a strike length of 1,200m and is currently defined to 100m below surface with further potential to extend mineralisation along strike and at depth.

The Echo geological team has identified several zones where there is potential to expand and extend the mineralisation of this deposit through additional RC and diamond drilling.

At the completion of drilling an updated mineral resource estimate will be completed allowing pit optimisations to be undertaken to define potential Ore Reserves.

Figure 12: Corboys Cross Section
Other Known Prospects

Echo currently has many prospects with known gold mineralisation at different stages of development. Each of these will be reviewed to assess if the prospects have the potential to realise a >50Koz Au deposit. If the prospect reaches the minimum size criteria, then further exploration work will be prioritised relative to their economic significance and likelihood of a mineral resource and conversion to an ore reserve.

TARGET GENERATION

In 2019 Echo is planning a complete review of the geophysical and geochemical datasets; this work will put Echo in a strong position to identify and generate quality targets to advance exploration and build the pipeline to discover gold resources in excess of multi-million ounces from the Echo tenement package.

Echo is planning a complete review of the geophysical and geochemical datasets to identify if any gaps are present. This work will put Echo in a stronger position to identify and generate quality targets to advance exploration and build the pipeline with a goal to discover gold resources in excess of multi-million ounces from the Echo tenement package.

As most of the known mineralisation within the Echo tenement package is controlled by structures and exists within the typical gold host rock lithologies, it is intended to construct a fully detailed litho-structural map across the entire Echo tenement package.

This detailed litho-structural map, along with the existing geoscientific data, will form the basis of a full target generation assessment and study across the entire tenement package. This will be conducted with the experience of the Echo exploration team along with assistance from several highly respected consultant exploration geoscientists.

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