

12 April 2017

**The Manager**  
**ASX Announcements**

**Electronic Lodgement**

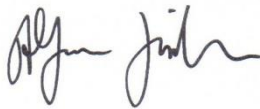
Dear Sir/Madam

**Off-market Takeover Bid by Northern Silica Corporations – First Supplementary Target’s Statement**

We act Heemskirk Consolidated Limited (**Heemskirk**). In accordance with section 647(3) of the *Corporations Act 2001* (Cth), we enclose a copy of Heemskirk’s first supplementary target’s statement dated 12 April 2017 relating to the off-market takeover bid by Northern Silica Corporation (**First Supplementary Target’s Statement**).

Heemskirk has today lodged a copy of the First Supplementary Target’s Statement with the Australian Securities & Investments Commission and served a copy on the Bidder.

Yours sincerely



**Alfonso Grillo**  
*agrillo@grillohiggins.com.au*

**HEEMSKIRK CONSOLIDATED LIMITED**  
**(ACN 106 720 138)**

**FIRST SUPPLEMENTARY TARGET'S STATEMENT**

This document is a supplementary target's statement (**First Supplementary Target's Statement**) issued by Heemskirk Consolidated Limited ACN 106 720 138 (**Heemskirk or the Company**) under section 644 of the *Corporations Act 2001* (Cth) and is supplementary to the target's statement dated and lodged with ASIC on 28 March 2017 (**Target's Statement**) in relation to the off-market takeover bid by Northern Silica Corporation (**NSC**) for all of the fully paid ordinary shares in the capital of Heemskirk (**Offer**).

The First Supplementary Target's Statement supplements, and should be read together with the Target's Statement. The First Supplementary Target's Statement prevails to the extent of any inconsistency with the Target's Statement.

Unless the context requires otherwise, terms defined in the Target's Statement have the same meaning in the First Supplementary Target's Statement.

A copy of the First Supplementary Target's Statement was lodged with ASIC on **12 April 2017**. Neither ASIC nor any of its officers take any responsibility for the content of the First Supplementary Target's Statement.

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**1. CHANGES TO THE INDEPENDENT EXPERT REPORT**

The Company refers to the independent expert report dated 27 March 2017 relating to the Offer (**the Independent Expert Report**) which was annexed to the Target's Statement.

On 11 April 2017, the Company received an updated Independent Expert Report (**Updated IER**) from the Independent Expert.

While the Independent Expert has confirmed that its opinion provided in the Independent Expert Report remains unchanged, it has made the following key changes to the Independent Expert Report in the Updated IER:

- (a) The valuation of Heemskirk was amended to exclude adjustments that were made for additional funding requirements;
- (b) The Canadian dollar exchange rate adopted by the Independent Expert was updated to align with the timing of the Updated IER; and

- (c) The value of the investments held by Heemskirk was also updated to align with the timing of the Updated IER.

As a consequence of the above changes:

- (a) the Independent Expert's valuation of a share in Heemskirk has been updated from a range of \$nil to \$0.008 with a preferred value of \$nil, to a range of \$0.039 to \$0.057 with a preferred value of \$0.048; and
- (b) the Independent Expert's valuation of the Share Consideration has been updated from a range of \$nil to \$0.006 with a preferred value of \$nil, to a range of \$0.028 to \$0.044 with a preferred value of \$0.036.

A number of consequential changes have been made in the Updated IER to reflect the updated valuation range. The Independent Expert has confirmed that its opinion in relation to the Offer remains unchanged and that, in the absence of a superior offer:

- (a) the Cash Consideration offer is fair and reasonable to Shareholders; and
- (b) the Share Consideration offer is neither fair nor reasonable to Shareholders.

A copy of the Updated IER is attached to the First Supplementary Target's Statement for your further information.

The Company refers to Sections 1, 2 and 4 of the Target's Statement (entitled 'Why you should accept the Offer and receive Cash Consideration', 'Why you may consider not accepting the Offer', and 'Why you may not elect the Share Consideration' respectively). Given that the opinion of the Independent Expert remains unchanged, the Directors are of the view that the changes in the Updated IER do not impact the Directors' reasoning set out in these Sections.

In addition, the Directors are of the view that the changes in the Updated IER do not change the recommendations and the reasons for those recommendations provided by the Company's Directors in Section 6 (entitled "Directors' recommendation and reasons" of the Target's Statement).

The Company is currently liaising with the Bidder in relation to the changes in the Updated IER and will provide shareholders with further information in due course.

## **2. VARIATION TO THE OFFER – EXTENSION OF OFFER PERIOD**

On 6 April 2017, the Bidder provided the Company with:

- (a) a notice that the Bidder has varied the Offer by extending the Offer Period for approximately one month to **7pm (Sydney time) on 16 May 2017**; and

- (b) a notice that the Bidder has varied the date for giving notice of status of the Conditions to be **8 May 2017**.

The Company also received the Supplementary Bidder's Statement dated and lodged with ASIC and ASX on 7 April 2017 (**First Supplementary Bidder's Statement**). The First Supplementary Bidder's Statement contains the above information and clarifications in relation to certain statements made by the Bidder in the Bidder's Statement dated 13 March 2017.

### 3. **SALES PROJECTIONS OF MOBERLY PROJECT**

Heemskirk refers to Section 9.2 of the Target's Statement in respect of the Moberly Project, particularly in respect of the sales projections of the Moberly Project.

Heemskirk also refers to the Independent Technical Specialist's Report (which was annexed to the Independent Expert Report) which was prepared by CSA Global Pty Ltd (**CSA Global**).

In particular, CSA Global has recommended an initial base price of CAD\$65/tonne in Year 1 with an annual price increase of CAD\$5/tonne to reach CAD\$85/tonne in Year 5. The Independent Expert, BDO Corporate Finance (East Coast) Pty Ltd has adopted and relied upon CSA Global's review and assumptions underpinning the forecast cash flows.

CSA Global noted that although Heemskirk has customer encouragement for supply of frac sand at prices potentially higher than the recommended values, in the absence of firm off-take contracts, a more detailed, robust and comprehensive pricing analysis is required to be confident of pricing assumptions. CSA Global further noted that this should involve:

- (a) estimates of major current and potential competitors' costs of product delivered to the main fracturing sites;
- (b) initial levels of pricing incentive if so required;
- (c) profit maximisation by allowing different (maximum) prices to be set for different delivered locations which capitalise on any associated strategic advantages; and
- (d) risk assessment similar to that used by silica and frac sand producer US Silica in their prospectus supplement from 2016.

As noted in Section 9.2, Heemskirk is of the view that it expects to be able to sell its products at approximately C\$85 per metric tonne from commencement of production, well above the range assumed by CSA Global and adopted by the Independent Expert in the early years of production for the following main reasons:

- (a) the Company has engaged in dialogue with potential future customers and recent discussions have indicated a mine gate price of approximately C\$85 per metric tonne is achievable; and

(b) North American peers report the average sales prices ranging from C\$92-C\$95 per metric tonne.

Having regard to the above, Heemskirk is of the view that the methods adopted by CSA Global with respect to pricing assumptions to reach the sale projections of the Moberly Project (and subsequently being relied upon by the Independent Expert) in recommending sales projections of the Moberly Project are conservative.

#### 4. TABLES OF COMPARISON OF CANADIAN AND AUSTRALIAN CORPORATIONS LAW

Heemskirk refers to Attachment 1 of the Target's Statement – *Comparison of Canadian and Australian Corporations Law* and each of the tables contained therein. Heemskirk states that Attachment 1 was prepared and reviewed by Heemskirk's Australian legal advisers, GrilloHiggins Lawyers, and its Canadian legal advisers, Stikeman Elliott LLP.

Further to the above, Stikeman Elliott LLP has given, and has not before the date of the First Supplementary Target's Statement withdrawn, its consent to be named in the Target's Statement and the First Supplementary Target's Statement as Heemskirk's Canadian legal adviser in the form and context in which it is named.

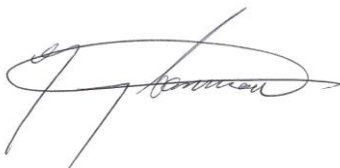
#### 5. DIRECTORS' RECOMMENDATION

The Board of Heemskirk continues to unanimously recommend the Cash Consideration under the Offer in the absence of a Superior Proposal for the reasons set out in the Target's Statement.

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The First Supplementary Target's Statement is issued by the Company and its issue has been authorised by a resolution of the Directors.

Dated **12 April 2017**



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Garry Cameron

**Non-executive Chairman**

For and on behalf of Heemskirk Consolidated Limited





**INDEPENDENT EXPERT'S REPORT**  
Heemskirk Consolidated Limited

In relation to the proposed takeover by  
Northern Silica Corporation

11 April 2017

This Financial Services Guide is issued in relation to an independent expert's report ('Report' or 'IER') prepared by BDO Corporate Finance (East Coast) Pty Ltd (ABN 70 050 038 170) ('BDOCF') at the request of the directors ('Directors') of Heemskirk Consolidated Limited ('HSK' or the 'Company').

### Engagement

On 22 December 2016, Taurus Resources No.2 BV ('Taurus') announced its intentions via a special purpose subsidiary vehicle called Northern Silica Corporation ('NSC' or 'Bidder') to make an offer to acquire all the shares in HSK that NSC and its associates do not already own via an off-market takeover for consideration comprising cash of A\$0.075 per share or scrip in NSC on a one for one basis (collectively, the 'Offer').

This IER is to be included in HSK's Target Statement in order to assist the HSK shareholders in their decision whether to accept the Offer.

### Financial Services Guide

BDOCF holds an Australian Financial Services Licence (License No: 247420) ('Licence'). As a result of our IER being provided to you BDOCF is required to issue to you, as a retail client, a Financial Services Guide (FSG). The FSG includes information on the use of general financial product advice and is issued to comply with our obligations as holder of an Australian Financial Services Licence.

### Financial services BDOCF is licensed to provide

The Licence authorises BDOCF to provide reports for the purposes of acting for and on behalf of clients in relation to proposed or actual mergers, acquisitions, takeovers, corporate restructures or share issues, to carry on a financial services business to provide general financial product advice for securities and certain derivatives (limited to old law securities, options contracts and warrants) to retail and wholesale clients.

BDOCF provides financial product advice by virtue of an engagement to issue the IER in connection with the issue of securities of another person.

Our IER includes a description of the circumstances of our engagement and identifies the party who has engaged us. You have not engaged us directly but will be provided with a copy of our IER (as a retail client) because of your connection with the matters on which our IER has been issued.

Our IER is provided on our own behalf as an Australian Financial Services Licensee authorised to provide the financial product advice contained in the IER.

### General financial product advice

Our IER provides general financial product advice only, and does not provide personal financial product advice, because it has been prepared without taking into account your particular personal circumstances or objectives (either financial or otherwise), your financial position or your needs.

Some individuals may place a different emphasis on various aspects of potential investments.

An individual's decision in relation to voting on the Offer described in the Target Statement may be influenced by their particular circumstances and, therefore, individuals should seek independent advice.

### Benefits that BDOCF may receive

BDOCF will receive a fee based on the time spent in the preparation of the IER in the amount of approximately \$75,000 (plus GST and disbursements). BDOCF will not receive any fee contingent upon the outcome of the Offer, and accordingly, does not have any pecuniary or other interests that could reasonably be regarded as being capable of affecting its ability to give an unbiased opinion in relation to the Offer.

### Remuneration or other benefits received by our employees

All our employees receive a salary. Employees may be eligible for bonuses based on overall productivity and contribution to the operation of BDOCF or related entities but any bonuses are not directly connected with any assignment and in particular are not directly related to the engagement for which our IER was provided.

### Referrals

BDOCF does not pay commissions or provide any other benefits to any parties or person for referring customers to us in connection with the reports that BDOCF is licensed to provide.

### Associations and relationships

BDOCF is the licensed corporate finance arm of BDO East Coast Partnership, Chartered Accountants and Business Advisers. The directors of BDOCF may also be partners in BDO East Coast Partnership, Chartered Accountants and Business Advisers.

BDO East Coast Partnership, Chartered Accountants and Business Advisers is comprised of a number of related entities that provide audit, accounting, tax and financial advisory services to a wide range of clients.

BDOCF's contact details are as set out on our letterhead.

BDOCF is unaware of any matter or circumstance that would preclude it from preparing the IER on the grounds of independence under regulatory or professional requirements. In particular, BDOCF has had regard to the provisions of applicable pronouncements and other guidance statements relating to professional independence issued by Australian professional accounting bodies and Australian Securities and Investments Commission ('ASIC').

### Complaints resolution

As the holder of an Australian Financial Services Licence, we are required to have a system for handling complaints from persons to whom we provide financial product advice. All complaints must be in writing, addressed to The Complaints Officer, BDO Corporate Finance (East Coast) Pty Ltd, Level 11, 1 Margaret Street, Sydney NSW 2000.

On receipt of a written complaint, we will record the complaint, acknowledge receipt of the complaint and seek to resolve the complaint as soon as practical. If we cannot reach a satisfactory resolution, you can raise your concerns with the Financial Ombudsman Service Limited ('FOS'). FOS is an independent body established to provide advice and assistance in helping resolve complaints relating to the financial services industry. BDOCF is a member of FOS. FOS may be contacted directly via the details set out below.

Financial Ombudsman Service Limited

GPO Box 3

Melbourne VIC 3001

Toll free: 1300 78 08 08

Email: [info@fos.org.au](mailto:info@fos.org.au)



Private & Confidential  
Commercial in Confidence

The Directors  
Heemskirk Consolidated Limited  
Level 17, 303 Collins Street  
Melbourne VIC 3000

11 April 2017

Dear Directors

## INDEPENDENT EXPERT'S REPORT IN RELATION TO THE TAKEOVER OFFER BY NORTHERN SILICA CORPORATION

1. BDO Corporate Finance (East Coast) Pty Ltd (ABN 70 050 038 170) ('**BDOCF**') has been engaged by Heemskirk Consolidated Limited ('**HSK**' or '**the Company**') to prepare an independent expert's report ('**Report**' or '**IER**') in relation to the takeover offer received from Northern Silica Corporation ('**NSC**' or '**Bidder**') ('**Offer**').
2. This IER has been prepared pursuant to section 640 of the Corporations Act 2001 ('**Corporations Act**' or '**the Act**') and is to be included in HSK's Target's Statement in order to assist the HSK shareholders in their decision whether or not to accept the Offer.

### Previous IER and changes in this Report

3. BDOCF has previously prepared an IER dated 27 March 2017 in relation to the Offer ('**Previous IER**'). The Previous IER was contained in the Target's Statement dated 28 March 2017.
4. The opinion provided in this IER remains unchanged. Nevertheless, we draw the shareholders' attention to the following key changes contained in this Report:
  - The valuation of HSK was amended to exclude adjustments that were made for additional funding requirements (as referred to in paragraphs 219 to 222, and consequently in the equity valuation summary presented in paragraph 226 of the Previous IER);
  - The Canadian dollar exchange rate adopted by BDOCF (as referred to in paragraph 181 in this IER) was updated to align with the timing of this IER; and
  - The value of the investments held by HSK (as referred to in paragraph 221 in this IER) was also updated to align with the timing of this report.
5. As a consequence of the above changes, our valuation of a share in HSK has increased from a range of \$nil to \$0.008 with a preferred value of \$nil, to a range of \$0.039 to \$0.057 with a preferred value of \$0.048. A number of consequential changes have been made in this Report to reflect the updated valuation range, but we reiterate that our opinion in relation to the Offer remains unchanged.

### Background

6. HSK is an ASX listed entity that owns a high quality silica project (referred to as the ('**Moberly Project**' or '**Project**') throughout this report) situated in British Columbia, Canada. The Moberly Project will produce ISO standard specification proppant that has specific applications in the oil and gas markets of Canada and Northern USA for use in hydraulic fracturing as well as broad applications for the glass, paint and cementing industries.

7. The NSC Group had voting power in 34.59% of HSK shares as at 28 March 2017. Taurus Resources No. 2 BV is currently providing the Company with a US\$25 million debt-funding package to support the Phase 1 Development of HSK's Moberly Project in Canada. A separate Taurus fund (Taurus Resources No. 1 Fund) also holds a voting power in 1.9% of HSK shares.

#### Offer

8. On 22 December 2016, HSK announced that it had received an indicative, non-binding and conditional Offer from Taurus, via NSC, to acquire 100% of the issued capital that NSC and its associates does not already own.
9. Under the Offer, each Shareholder of HSK (who is not an ineligible foreign shareholders) would be entitled to receive either (at their election):
- cash consideration of \$0.075 for each Ordinary Share held ('Cash Consideration'); or
  - scrip in the Bidder (issued on a 1-for-1 basis to the number of HSK shares held by that HSK Shareholder) ('Share Consideration').
10. At or shortly prior to conclusion of the bid, Taurus will transfer all of its Shares in HSK to the Bidder in return for the Share Consideration. The Bidder has been incorporated for the sole purpose of making the Offer. The Bidder is owned 90.0% by Taurus, 9.86% by Taurus Resources No.2 LP (being a limited partnership investment vehicle established in the Cayman Islands) and 0.14% by Taurus Resources No. 2 Trust (being an unlisted investment trust established under the laws of Australia), which are all related parties.
11. On 13 February 2017, the Directors of HSK recommended NSC's Offer and that Shareholders elect the Cash Consideration, in the absence of a superior offer and provided the Independent Expert determines the Offer is fair and reasonable. The Directors of HSK did not make a recommendation in respect of the Share Consideration. HSK has also entered into a Takeover Implementation Agreement with NSC that includes important arrangements relating to the opportunity for NSC to match any competing proposals made for HSK, exclusive restrictions for HSK and a mutual break fee payable in certain circumstances.
12. Additionally, Taurus has offered to provide a working capital bridging facility of up to CAD\$10.0 million to HSK via its Canadian subsidiary, HCA Mountain Minerals (Moberly) Limited with drawdowns to be in minimum tranches of CAD\$2.5 million, subject to NSC declaring the Offer free of all conditions.
13. Further detail regarding the Offer is set out in NSC's Bidder's Statement dated 13 March 2017 and the First Supplementary Bidder's Statement dated 7 April 2017.

#### Transaction Costs

14. HSK will incur transaction costs of approximately A\$800,000 in connection with the Offer, including for engaging the Independent Expert, Technical Expert, legal fees etc. In addition, HSK may be obliged to pay a break fee to NSC in certain circumstances of A\$450,000

#### Conditions Precedent

15. The Takeover Offer remains conditional upon the following:
- Minimum acceptance of the Offer such that NSC achieves a relevant interest in at least 90% of the issued capital of HSK when taken together with interest held by members of the NSC group;
  - No material adverse effect on the Company; and
  - Other customary arrangements for an Offer of this nature.

## Summary of Opinion

16. We have considered the terms of the Offer as outlined in the body of this Report, and in the absence of a superior offer, we have concluded that:
- the Cash Consideration Offer is fair and reasonable to Shareholders; and
  - the Share Consideration Offer is neither fair nor reasonable to Shareholders.

## Fairness Assessment

17. In forming our opinion in relation to the fairness of the Offer, we have compared the fair market value per share of HSK on a controlling basis to the Cash Consideration and the Share Consideration (on a minority basis).
18. In undertaking our fairness opinion, we have had regard to the Australian Securities and Investments Commission (ASIC) Regulatory Guide 111 *Content of expert reports (RG 111)*.
19. RG 111.11 indicates that an offer is 'fair' if the value of the offer price or consideration is equal to or greater than the value of the securities the subject of the offer. The comparison must be made assuming:
- A knowledgeable and willing, but not anxious, buyer and a knowledgeable and willing, but not anxious, seller acting at arm's length; and
  - 100% ownership of the target company, irrespective of the percentage holding of the bidder or its associates in the target company.
20. In accordance with ASIC's guidance on the application of RG 111.11, we have assessed the value of HSK before the Offer on a control basis, and in assessing the value of the Share Consideration we have valued the NSC shares on a minority basis.

## Valuation of HSK

21. Our valuation of HSK has involved the following:
- We have assessed the value of HSK before the Offer on a sum of the parts basis, which estimates the value of a company by separately valuing each asset and liability. The value of HSK's interest in the Moberly Project was assessed using the discounted cash flow ('DCF') method, having regard to the independent technical assessment of the Moberly Project undertaken by CSA Global Pty Ltd ('CSA').
  - We have considered the quoted market price ('QMP') as our secondary method. HSK's shares are listed on the ASX, which is a regulated and observable market where HSK's shares can be traded. However, we note that trading of HSK's shares has been relatively illiquid, with only 3.8% of total shares being traded in the 12 months prior to the Offer. We also note that the QMP of a company's shares is reflective of a minority interest. Where applicable, we have incorporated a premium for control in our analysis.

### Fairness of Cash Consideration Offer

22. The following table summarises the fairness assessment in relation to the Cash Consideration:

**Table 1: Fairness assessment - Cash Consideration**

A\$	Ref	Low	High	Preferred
Assessed value per HSK share (control basis)	Section 7	\$0.039	\$0.057	\$0.048
Cash Consideration		\$0.075	\$0.075	\$0.075

Source: BDOCF analysis

23. The Cash Consideration is higher than our valuation range of HSK Shares on a controlling basis. Accordingly, we conclude that the Offer is fair to HSK Shareholders electing to receive the Cash Consideration.

### Fairness of Share Consideration Offer

24. Our valuation of the Share Consideration required a valuation of the NSC shares.

25. As discussed above, NSC has been incorporated for the sole purpose of holding HSK shares (to be transferred by Taurus at or shortly prior to conclusion of the Offer) and issuing scrip to HSK Shareholders' who elect to take the Scrip Alternative. As a newly incorporated entity, NSC does not hold any other assets or liabilities. Accordingly, our valuation of NSC is based entirely on our valuation of HSK.

26. However, in accordance with ASIC's guidance on the application of RG 111.11 to Share Consideration, the value of a NSC share should be adjusted for a minority discount to reflect its value on a minority basis for HSK Shareholders.

27. The result of our fairness analysis for the Share Consideration is summarised below:

**Table 2: Fairness assessment - Share Consideration**

A\$	Ref	Low	High	Preferred
Assessed value per HSK share (control basis)	Section 7	\$0.039	\$0.057	\$0.048
Share Consideration (minority basis)	Section 8	\$0.028	\$0.044	\$0.036

Source: BDOCF analysis

28. Our valuation of the Share Consideration is lower than our assessed value of HSK's shares. The reason for the difference is due entirely to the application of a minority discount. However, the valuation range for the Share Consideration overlaps with our valuation range for HSK.

29. RG 111.11 indicates that an offer is 'fair' if the value of the offer price or consideration is equal to or greater than the value of the securities the subject of the offer. A strict interpretation of RG 111.11 may suggest that the Share Consideration Offer is fair due to the overlapping ranges.

30. However, we note that the valuation ranges only overlap as the minority discount is smaller than our valuation range for HSK. In our view, the value of the Share Consideration will always be lower than the value of shares in HSK, as the Share Consideration represents a minority investment in an unlisted company.

31. Accordingly, in our view the Share Consideration is 'not fair' to the shareholders of HSK.

## Reasonableness Assessment

### Reasonableness of Cash Consideration Offer

32. On the basis that the Offer is fair, it is also considered reasonable.
33. We also consider the following advantages and disadvantages to be relevant in assessing the reasonableness of the Cash Consideration Offer:

**Table 3: Reasonableness factors for Cash Consideration Offer**

Advantages	Ref Paragraph
<ul style="list-style-type: none"> <li>The Cash Consideration Offer is fair, and RG 111 states that an offer is also reasonable if it is fair.</li> </ul>	266
<ul style="list-style-type: none"> <li>The Cash Consideration Offer represents a significant premium to HSK share price prior to the Offer</li> </ul>	267
<ul style="list-style-type: none"> <li>The Cash Consideration of \$0.075 per share provides Shareholders with cash certainty and an immediate liquidity event with respect to their investment which is an important consideration given that HSK shares exhibit low levels of liquidity (3.80% over 12 months prior to the Offer)</li> </ul>	268 - 270
<ul style="list-style-type: none"> <li>Acceptance of the Cash Consideration Offer removes the risks that Shareholders bear from continuing to hold HSK shares, inclusive of, but not limited to: the successful development of the Moberly Project, whether HSK with have access to sufficient funds to sustain its funding requirements and also repay its debt facilities; and the demand and supply markets for frac sand.</li> </ul>	271
<ul style="list-style-type: none"> <li>Shareholders will not be exposed to the risks of being minority shareholders in a non-listed entity. In the event that all of the Offer's conditions are met, NSC will have corporate control over HSK, with other non-associated shareholders remaining as minority shareholders in the Company. Shareholders will have limited control over the future direction and operations of HSK if NSC becomes the majority shareholder.</li> </ul>	274
Disadvantages	Ref Paragraph
<ul style="list-style-type: none"> <li>If Shareholders accept the Cash Consideration as part of the Offer, they will no longer hold a relevant interest in the Company, and will forgo any potential future upside from the development or potential expansion of the Moberly Project.</li> </ul>	273 - 278

Source: BDOCF analysis

### Reasonableness of Share Consideration Offer

34. We consider the following advantages and disadvantages to be relevant in assessing the reasonableness of the Share Consideration Offer:

**Table 4: Reasonableness factors for Share Consideration Offer**

Advantages	Ref Paragraph
<ul style="list-style-type: none"> <li>The Share Consideration provides an opportunity for HSK Shareholders to retain an interest in the Moberly Project</li> </ul>	276
<ul style="list-style-type: none"> <li>The Bidder has offered an underwritten working capital bridge financing facility to be available to the Company, provided the Offer is declared free of all conditions.</li> </ul>	277 - 278
<ul style="list-style-type: none"> <li>CGT Rollover Relief is expected to be available for those HSK Shareholders who accept the Share Consideration subject to the final status of the class ruling application made to the ATO.</li> </ul>	279
Disadvantages	Ref Paragraph
<ul style="list-style-type: none"> <li>The Cash Consideration Offer represents a superior offer.</li> </ul>	280
<ul style="list-style-type: none"> <li>Shareholders in HSK who elect to receive the Share Consideration will receive shares in a private unlisted company, NSC. Accordingly, the liquidity of NSC shares following the Offer is expected to be low which would limit the ability of HSK shareholders to realise their investment. Shareholders may also have limited access to information.</li> </ul>	281 - 282

Source: BDOCF analysis

35. We also consider the following matters to be relevant:

**Table 5: Other reasonableness factors**

Other factors	Ref Paragraph
<ul style="list-style-type: none"> <li>HSK's share price may decrease if the takeover does not proceed</li> </ul>	283 - 286
<ul style="list-style-type: none"> <li>NSC's control of HSK and the Moberly Project following the Offer will be significant when compared to all other shareholders. It is likely NSC will be able to single-handedly pass and block general resolutions, as well as block special resolutions at shareholders' meetings.</li> </ul>	253 - 257
<ul style="list-style-type: none"> <li>The Directors of HSK have advised that they are not aware of any alternative offers and have recommended that shareholders accept the Cash Consideration Offer (subject to the opinion provided in this report).</li> </ul>	287 - 288

## Other Matters

### Shareholders' individual circumstances

36. Our analysis has been undertaken, and our conclusions are expressed at an aggregate level. Accordingly, BDOCF has not considered the effect of the Offer on the particular circumstances of individual HSK Shareholders. Some individual HSK Shareholders may place a different emphasis on various aspects of the Offer from that adopted in this IER. Accordingly, individual HSK Shareholders may reach different conclusions as to whether or not the Offer is fair and reasonable in their individual circumstances.
37. The decision of an individual HSK Shareholder in relation to the Offer may be influenced by their particular circumstances and accordingly HSK Shareholders are advised to seek their own independent advice.
38. Approval or rejection of the Offer is a matter for individual HSK Shareholders based on their expectations as to the expected value and future prospects and market conditions together with their particular circumstances, including risk profile, liquidity preference, portfolio strategy and tax position. HSK Shareholders should carefully consider the Target's Statement. HSK Shareholders who are in doubt as to the action they should take in relation to the Offer should consult their professional adviser.

### Current Market Conditions

39. Our opinion is based on economic, market and other conditions prevailing at the date of this IER. Such conditions can change significantly over relatively short periods of time.
40. Changes in those conditions may result in any valuation or other opinion becoming quickly outdated and in need of revision. We reserve the right to revise any valuation or other opinion, in light of material information existing at the valuation date that subsequently becomes known to us.

### Sources of Information

41. **Appendix 2** to the IER sets out details of information referred to and relied upon by us during the course of preparing this IER and forming our opinion.
42. The statements and opinions contained in this IER are given in good faith and are based upon our consideration and assessment of information provided by HSK.
43. Under the terms of our engagement, HSK agreed to indemnify the partners, directors and staff (as appropriate) of BDO East Coast Partnership and BDOCF and their associated entities, against any claim, liability, loss or expense, costs or damage, arising out of reliance on any information or documentation provided by HSK which is false or misleading or omits any material particulars, or arising from failure to supply relevant information.

### Limitations

44. This IER has been prepared at the request of the Directors for the sole benefit of the Directors and HSK Shareholders to assist them in their decision to approve or reject the Offer. This IER is to accompany the Target's Statement to be sent to HSK Shareholders to consider the Offer and was not prepared for any other purpose.
45. Accordingly, this IER and the information contained herein may not be relied upon by anyone other than the Directors and HSK Shareholders without our written consent. We accept no responsibility to any person other than the Directors and Shareholders in relation to this IER.
46. This IER should not be used for any other purpose and we do not accept any responsibility for its use outside this purpose. Except in accordance with the stated purpose, no extract, quote or copy of our IER, in whole or in part, should be reproduced without our written consent, as to the form and context in which it may appear.

47. We have consented to the inclusion of the IER with the Target's Statement. Apart from this IER, we are not responsible for the contents of the Target's Statement or any other document associated with the Offer. We acknowledge that this IER may be lodged with regulatory authorities.

**Summary**

48. This summary should be read in conjunction with the attached IER that sets out in full, the purpose, scope, basis of evaluation, limitations, information relied upon, analysis and our findings.

**Glossary**

49. Capitalised terms used in this Report have the meanings set out in the glossary. A glossary of terms used throughout this IER is set out in **Appendix 1**.

**Financial Services Guide**

50. BDOCF holds an Australian Financial Services Licence which authorises us to provide reports for the purposes of acting for and on behalf of clients in relation to proposed or actual mergers, acquisitions, takeovers, corporate restructures or share issues. A financial services guide is attached to this IER.

Yours faithfully

**BDO CORPORATE FINANCE (EAST COAST) PTY LTD**



**Stephen Seear**  
Director



**Dan Taylor**  
Director



## TABLE OF CONTENTS

1. SCOPE AND LIMITATIONS .....	12
2. OUTLINE OF THE OFFER .....	16
3. PROFILE OF HSK .....	19
4. PROFILE OF NSC .....	31
5. VALUATION METHODOLOGY .....	32
6. VALUATION OF THE MOBERLY PROJECT .....	34
7. VALUATION OF HSK.....	41
8. VALUATION OF NSC.....	43
9. FAIRNESS ASSESSMENT .....	44
10. REASONABLENESS ASSESSMENT .....	46
11. QUALIFICATIONS, DECLARATIONS AND CONSENTS .....	51
APPENDIX 1: GLOSSARY .....	52
APPENDIX 2: SOURCES OF INFORMATION .....	53
APPENDIX 3: VALUATION METHODS - BUSINESSES AND ASSETS.....	54
APPENDIX 4: CONTROL PREMIUM .....	56
APPENDIX 5: DISCOUNT RATE ASSESSMENT .....	58
APPENDIX 6: COMPANY AND TRANSACTION DESCRIPTIONS .....	62
APPENDIX 7: TECHNICAL EXPERT REPORT PREPARED BY CSA GLOBAL PTY LTD.....	64

# 1. SCOPE AND LIMITATIONS

## Scope

51. The directors of HSK have engaged BDO to prepare an IER for inclusion in the Target's Statement to assess whether the Offer is fair and reasonable to the HSK Shareholders.
52. The scope of procedures we have undertaken has been limited to those procedures we believe are required in order to form our opinion. Our procedures did not include verification work nor constitute an audit or assurance engagement in accordance with Australian Auditing and Assurance Standards.

## Summary of Regulatory Requirements

### Section 640 of the Act

53. Section 640 of the Act requires the Target's Statement to include an independent expert's report to shareholders if:
  - The bidder's voting power in the target is 30% or more; or
  - The bidder and the target have a common director or directors.
54. At 28 March 2017, through its related entities Taurus Funds Management Pty Ltd and Taurus Resources Limited, Taurus held a relevant interest in HSK of approximately 34.59% of fully paid ordinary shares. Under the Offer, Taurus proposes to acquire the remaining shares in HSK that it currently does not own, through a newly incorporated subsidiary called NSC. At or shortly prior to conclusion of the bid, Taurus will transfer all of its Shares to the Bidder in return for Share Consideration.
55. An IER accompanying a target statement must state whether, in the expert's opinion, the takeover offer is fair and reasonable and give the reasons for forming that opinion.
56. Accordingly, the directors of HSK have engaged BDO to prepare an IER for inclusion in the Target's Statement to assess whether the Offer is fair and reasonable to the HSK Shareholders in accordance with section 640 of the Act.

### ASIC Regulatory Guidance

57. Neither the Listing Rules nor the Corporations Act defines the meaning of 'fair and reasonable'. In determining whether the Offer is fair and reasonable, we have had regard to the views expressed by ASIC in RG 111. This regulatory guide provides guidance as to what matters an independent expert should consider to assist security holders to make informed decisions about transactions.
58. RG 111 suggests that where the transaction is a control transaction the expert should focus on the substance of the control transaction rather than the legal mechanism to affect it.
59. In our opinion, the Offer is a control transaction as defined by RG 111 and we have therefore assessed the Offer as a control transaction to consider whether, in our opinion, it is fair and reasonable to HSK Shareholders.

## Basis of Assessment

60. In determining whether the Offer is fair and reasonable to the Non-associated Shareholders, we have had regard to:
- RG 111 'Content of expert reports' (RG 111)
  - Regulatory Guide 112 'Independence of experts' (RG 112).
61. RG 111 establishes guidelines in respect of independent expert reports under the Act. RG 111 establishes two distinct criteria for an expert analysing a control transaction. The tests are:
- Is the offer 'fair'?
  - Is it 'reasonable'?
62. The terms fair and reasonable are regarded as separate elements and are not regarded as a compound phrase.

### Fair

63. RG 111.11 indicates that an offer is 'fair' if the value of the offer price or consideration is equal to or greater than the value of the securities the subject of the offer. The comparison must be made assuming:
- A knowledgeable and willing, but not anxious, buyer and a knowledgeable and willing, but not anxious, seller acting at arm's length.
  - 100% ownership of the target company, irrespective of the percentage holding of the bidder or its associates in the target company.
64. In accordance with ASIC's guidance on the application of RG 111.11, we have assessed the value of HSK before the Offer on a control basis, and in assessing the value of the Share Consideration we have valued the NSC shares on a minority basis.

### Reasonable

65. In accordance with paragraph 12 of RG 111, an offer is 'reasonable' if it is 'fair'. An offer could also be considered 'reasonable' if there are valid reasons to approve it (in the absence of any higher bid before the close of the offer), notwithstanding that it may not be regarded as 'fair'.

## General requirements in relation to the IER

66. In preparing the IER, ASIC requires the independent expert when deciding on the form of analysis for a report, to bear in mind that the main purpose of the report is to adequately deal with the concerns that could reasonably be anticipated of those persons affected by the Offer. In preparing this IER we considered the necessary legal requirements and guidance of the Act, ASIC regulatory guides and commercial practice.
67. The IER also includes the following information and disclosures:
- Particulars of any relationship, pecuniary or otherwise, whether existing presently or at any time within the last two years, between BDO East Coast Partnership or BDOCF and any of the parties to the Offer.
  - The nature of any fee or pecuniary interest or benefit, whether direct or indirect, that we have received or will or may receive for or in connection with the preparation of the IER.
  - We have been appointed as independent expert for the purposes of providing an IER for the Target's Statement.
  - That we have relied on information provided by the board of Directors of HSK (Board) and management of HSK and that we have not carried out any form of audit or independent verification of the information provided.

- That we have received representations from the Board in relation to the completeness and accuracy of the information provided to us for the purpose of our IER.

### Special Value

68. We have not considered special value in forming our opinion. Special value is the amount that a potential acquirer may be prepared to pay for a business in excess of the fair market value. This premium represents the value to the particular potential acquirer of potential economies of scale, reduction in competition, other synergies and cost savings arising from the acquisition under consideration not available to likely purchasers generally. Special value is not normally considered in the assessment of fair market value as it relates to the individual circumstances of special purchasers.

### Reliance on Information

69. This IER is based upon financial and other information provided by the Board and management of HSK. We have considered and relied upon this information. Unless there are indications to the contrary, we have assumed that the information provided was reliable, complete and not misleading, and material facts were not withheld. The information provided was evaluated through analysis, inquiry and review for the purpose of forming an opinion as to whether the Offer is fair and reasonable.
70. We do not warrant that our inquiries have identified or verified all of the matters which an audit, extensive examination or due diligence investigation might disclose. In any event, an opinion as to whether a corporate transaction is fair and reasonable is in the nature of an overall opinion rather than an audit or detailed investigation.
71. It is understood that the accounting information provided to us was prepared in accordance with generally accepted accounting principles.
72. Where we relied on the views and judgement of management the information was evaluated through analysis, inquiry and review to the extent practical. However, such information is often not capable of direct external verification or validation.
73. Under the terms of our engagement, HSK has agreed to indemnify BDOCF and BDO East Coast Partnership, and their partners, directors, employees, officers and agents (as applicable) against any claim, liability, loss or expense, costs or damage, arising out of reliance on any information or documentation provided, which is false or misleading or omits any material particulars, or arising from failure to supply relevant documentation or information.

### Limitations

74. We acknowledge that this IER may be lodged by the Board with regulatory and statutory bodies and will be included in the Target's Statement to be sent to the HSK Shareholders. The Board acknowledges that our IER has been prepared solely for the purposes noted in the Target's Statement and accordingly we disclaim any responsibility from reliance on the IER in regard to its use for any other purpose. Except in accordance with the stated purposes, no extract, quote or copy of the IER, in whole or in part, should be reproduced without our prior written consent, as to the form and context in which it may appear.
75. We note that the IER does not deal with the individual investment circumstances of HSK Shareholders and no opinion has been provided in relation to same. Some individual HSK Shareholders may place a different emphasis on various aspects of the Offer from that adopted in our IER. Accordingly, individuals may reach different conclusions on whether or not the Offer is fair and reasonable to them. An individual HSK Shareholder's decision in relation to the Offer may be influenced by their particular circumstances and, therefore, HSK Shareholders are advised to seek their own independent advice.
76. Apart from the IER, we are not responsible for the contents of the Target's Statement or any other document. We have provided consent for inclusion of the IER in the Target's Statement. Our consent and the Target's Statement acknowledge that we have not been involved with the issue of the Target's Statement and that we accept no responsibility for the Target's Statement apart from the IER.

## Assumptions

77. In forming our opinion, we have made certain assumptions and outline these in our IER including:
- We have performed our analysis in this Report on the basis that the conditions precedent to the Takeover Implementation Agreement and the Offer are satisfied.
  - That matters such as title to all relevant assets, compliance with laws and regulations and contracts in place are in good standing, and will remain so, and that there are no material legal proceedings, other than as publicly disclosed.
  - Information sent out in relation to the Offer to HSK Shareholders or any regulatory or statutory body is complete, accurate and fairly presented in all material respects.
  - Publicly available information relied on by us is accurate, complete and not misleading.
  - If the Offer is implemented, that it will be implemented in accordance with the stated terms.
  - The legal mechanism to implement the Offer is correct and effective.
  - There are no undue changes to the terms and conditions of the Offer or complex issues unknown to us.
  - Other assumptions, as outlined in the valuation sections.

## 2. OUTLINE OF THE OFFER

78. On 22 December 2016, HSK announced that it had received an indicative, non-binding and conditional Offer from Taurus, via NSC, to acquire 100% of the issued capital that NSC and its associates do not already own.
79. Under the Offer, each Shareholder (who is not an ineligible foreign shareholder) of HSK is entitled to elect to receive either:
- Cash consideration of \$0.075 for each Ordinary Share held; or
  - Share Consideration in the form of 1 share in NSC for every 1 share held in HSK.
80. On 13 February 2017, the Directors of HSK recommended NSC's Offer and Shareholders elect the Cash Consideration, in the absence of a superior offer and provided the Independent Expert determines the Taurus Proposal is fair and reasonable. The Directors of HSK did not make a recommendation in respect of the Share Consideration. HSK has also entered into a Takeover Implementation Agreement with NSC that includes important arrangements relating to the opportunity for NSC to match any competing proposals made for HSK, exclusive restrictions for HSK and a mutual break fee payable in certain circumstances.

### NSC's Intentions

81. On 13 March 2017, NSC issued its Bidder's Statement that, among other things, disclosed NSC's intentions with regard to HSK's business, operations, employees and assets.
82. The general intentions of the Bidder based on the information presently known to it are set out below.

### If 90% or more of HSK's shares is acquired

83. If NSC acquires 90% or more of HSK's shares and if its entitled to, NSC will proceed with:
- The compulsory acquisition of outstanding HSK shares in accordance with Chapter 6A of the Act;
  - Replace all members of the HSK Board with its own nominees; and
  - At the conclusion of the compulsory acquisition process, arrange for HSK to be removed from official listing of the ASX;
84. After the end of the Offer period, undertake an orderly transfer of HSK's corporate functions from Melbourne to Calgary. This will involve the closure of HSK's Melbourne office with all corporate roles based out of Calgary.
85. NSC will continue the operations of HSK's existing business and in particular focus on the ongoing development of the Moberly Project. The Bidder's primary focus will be on ensuring that:
- Moberly site activities are undertaken in accordance with all operating permits, licences and regulations and in-line with industry best practise environmental, social and governance standards;
  - Remaining Moberly construction activities are completed in accordance with the current schedule and on-budget;
  - Detailed plans are developed to cover Moberly commissioning once construction has been completed;
  - Relevant personnel are hired to manage Moberly commissioning;
  - Moberly consistently performs in-line with its forecast operating parameters once commissioned;
  - Discussions with prospective off-take counter parties continue; and
  - Appropriate corporate arrangements are established in Calgary to support Moberly site based activities.

86. NSC will after the end of the Offer Period and in the ordinary course of managing its existing business, conduct a general review of the operations, assets, appropriate capital structure and employees.
87. The Bidder intends to utilise the Taurus Working Capital Facility to cover working capital needs required to achieve completion of Moberly Stage 1 development, including but not limited to:
- Additional capital costs;
  - Operating costs during commissioning;
  - Funding required to support a build-up of finished product inventory that may be required to support Moberly off-take arrangements;
  - Funding required to support Moberly logistics arrangements;
  - General corporate costs; and
  - Debt servicing requirements under the Taurus Secured Facility.
88. The Bidder currently intends to undertake a refinancing of the Taurus Working Capital Facility via a rights issue once Moberly Stage 1 has reached steady-state production and sustainably positive cash flow generation. HSK shareholders who elect to take the Share Consideration will be diluted if they do not participate in any subsequent rights issue.
89. Following the end of the Offer Period and consistent with the above intentions, it is intended that the Bidder will conduct a broad based review of the employment and roles of all of HSK's employees.
90. The Bidder does not intend to make significant changes to HSK's Calgary based management team. The Bidder intends to appoint Mr Mark Connors to act as President and CEO of the Bidder upon completion of the Offer. Mr Connors currently serves as acting Chief Executive Officer of HSK and President of Heemskirk Canada Limited. This appointment is subject to completion of the Offer and finalisation of an employment contract on usual commercial terms.
91. The Bidder intends to make two key appointments to HSK's Calgary team to augment its current operations:
- Chief Financial Officer; and
  - Chief Operating Officer ("COO").
- The Bidder intends to ensure that any COO appointment includes an individual with a dedicated background in minerals processing engineering.
92. The Bidder intends that the Secured Facility Agreement will continue after completion of the Offer and will seek all necessary consents and waivers required under the Secured Facility Agreement in order to completion the Offer.
- Further, the Bidder will obtain all necessary contents and waivers from the lender in order to accede to the Secured Facility Agreement as a guarantor.

**If 50.1% or more but less than 90% ownership is acquired**

93. If the Bidder waives its 90% minimum acceptance condition and acquires more than 50.1% but less than 90% of HSK shares, NSC would obtain effective control of HSK but it would not be entitled to compulsorily acquire the outstanding HSK Shares.
94. In these circumstances, the Bidder Group intends:
- that the HSK business will continue substantially in its current form;
  - to seek to implement the same intentions if it were to acquire 90% or more of HSK shares to the extent possible, as set out above;
  - to continue to deal with its stake in HSK with a view to maximising returns for the NSC Group; and
  - to apply for removal of HSK from the ASX if it is able to do so consistently with ASX guidance.

**If less than 50% of HSK's shares is acquired**

95. If the Bidder waives its 90% minimum acceptance condition and acquires less than 50.1% of HSK shares, these shares will become an investment of the Bidder and would be reviewed in accordance with its usual investment policies.



### 3. PROFILE OF HSK

#### Overview

96. HSK is a producer of industrial minerals in Canada with its operations located close to the Western Canadian Sedimentary Basin, with easy access to vital transport infrastructure. The Company has been operating in the region for over 30 years and is currently redeveloping the Moberly Project to be able to produce high quality silica for use as frac sands, glass sands and other industrial minerals markets.
97. The Moberly plant is located on the Trans-Canada Highway and the Canadian Pacific Rail Mainline near Golden, British Columbia. It is within 12 hours from the targeted market areas that extend from southern Saskatchewan (Bakken Basin) to northeast British Columbia (Horn River Basin) by truck. HSK's marketing will be concentrated on the Duvernay and Montney areas of the Western Canadian Sedimentary Basin.
98. The material mined at Moberly is the Ordovician Mount Wilson Quartzite unit. Between 2010 and 2012, HSK investigated, via an internal pre-feasibility and then a feasibility study (which was updated in early 2015), the possibility of treating the quartzite to produce a 'frac sand' suitable for use in the oil and gas sector as a proppant. The studies found the Project to be economically viable and the Project moved to engineering design of a new frac sand plant on the existing plant side and an increased mining rate.
99. On 15 July 2015, HSK announced that it had secured funding for its Moberly Project from Taurus Funds Management following a process of technical due diligence and legal documentation. The Funding Package was broken into two tranches:
- Tranche 1 consisted of US\$25m to complete the 300,000 tonnes per annum construction and production development Project (Stage One); and
  - Tranche 2 consisted of US\$15m to complete an expansion of the Project (Stage Two) to a 600,000 tonnes per annum production level, once Stage One had been successfully completed
100. The proposed use of the funding was for the remaining development of the Moberly Project with HSK announcing it would progress into the full construction phase of the Project.
101. The initial footing stage of construction was completed in May 2015. HSK entered into a construction contract with Maple Reinders for construction of the Stage One Moberly plant. Construction commenced in February 2016 and the estimated completion is 30 June 2017. At the completion of Stage One, the Moberly Project is expected to have a nameplate capacity of 300,000 metric tonnes per annum ('Mtpa').
102. HSK also commissioned Morrison Hersfield to investigate the possibility of increasing the capacity of the Moberly Plant to 600,000 Mtpa. The estimated total cost for increasing the nameplate capacity to 600,000 Mtpa was CAD\$18.0 million. The cost estimates considered in the Morrison Hersfield report were high-level estimates provided without a detailed design/scope of work and represent only order-of-magnitude opinion of probable costs.

#### Board and Management Structure

103. The Company's current board members and senior management are shown below:
- Mr Mark Connors - Acting Chief Executive Officer and President of Heemskirk Canada Limited;
  - Mr Garry Cameron - Non-Executive Chairman;
  - Mr Peter McKenna - Non-Executive Director;
  - Mr John Taylor - Non-Executive Director, and
  - Ms Trish Hally - Company Secretary.

## Historical Financial Information

**Table 6: Historical Statements of Financial Performance**

Statement of Comprehensive Income	Audited 30-Sep-14 A\$'000	Audited 30-Sep-15 A\$'000	Audited 30-Sep-16 A\$'000
<b>Revenue</b>			
Revenue	705	224	317
Cost of sales	(1,146)	(52)	-
<b>Gross (loss)/profit</b>	<b>(441)</b>	<b>172</b>	<b>317</b>
<b>Expenses</b>			
Depreciation and amortisation expense	(399)	(331)	(425)
Employee benefits expense	(1,282)	(2,195)	(2,241)
Corporate costs	(544)	(1,072)	(876)
Consultants and advisory expense	(519)	(1,079)	(755)
Finance costs	(455)	(285)	(187)
Impairment expense	(11)	(22)	(164)
Realised loss on sale of investments	(220)	(48)	(1,694)
Fair value gain/(loss) on equity investments	(1,929)	(519)	13
Gain/(loss) on foreign exchange	-	6	(167)
Gain on forward currency contracts	-	-	1,285
Other income	429	78	49
<b>Loss before income tax</b>	<b>(5,372)</b>	<b>(5,295)</b>	<b>(4,845)</b>
Income tax benefit	2	51	25
Profit from discontinued operations	2,991	-	-
<b>Loss after income tax</b>	<b>(2,379)</b>	<b>(5,244)</b>	<b>(4,820)</b>
Gain/(loss) on foreign currency translation	(283)	502	(1,098)
Foreign currency translation differences	(29)	-	-
Asset revaluation	(453)	-	-
<b>Other comprehensive loss, net of taxes</b>	<b>(765)</b>	<b>502</b>	<b>(1,098)</b>
<b>Total comprehensive loss for the period</b>	<b>(3,144)</b>	<b>(4,742)</b>	<b>(5,918)</b>

Source: HSK annual report for the years ended 30 September 2014, 30 September 2015 and 30 September 2016

104. We note the following with regard to HSK's operating performance:

- The Moberly silica deposit was mined from the early 1980s to 2009 for silica processed to silica sand for glass making, golf course sand and similar products. Mining was also conducted again in 2012 and 2016. Employee and other overhead costs are now primarily incurred to support the development of the Moberly Project and to satisfy the Company's regulatory and other compliance obligations. The majority of cost in relation to mine development have been capitalised which are shown in the historical statements of financial position below.
- Revenue is relatively small and represents the sale of goods from the inventory stockpile. Production ceased during the construction of footings at the Moberly plant site (May 2015), with revenue during this time representing sale of the inventory stockpile.
- In 2016, total costs for the Group fell by 7.4% to \$4.0 million as compared to the year ended 30 September 2015. This was largely due to a reduction in legal, due diligence and consultancy fees relating to the development of the Project. The restructuring of corporate activities resulted in redundancies of \$0.5 million being recognised and paid during the year.

- HSK entered into foreign currency forward contracts to hedge its exposure to fluctuations in the USD:CAD exchange rate and to this effect there was a net gain of \$1.3 million for the year ended 30 September 2016.
- The realised loss of \$1.7 million during the year ended 30 September 2016 on sale of investments relates to the sale of approximately 2.5 million shares in Almonty Industries Inc. The shares were received as part payment for the sale of HSK's Los Santos Tungsten Mine to Almonty in April 2011.
- The decline in finance costs by approximately 35% during FY16 was due to the impact of the redemption of convertible notes in March 2015.
- Profit from discontinued operations of approximately \$3.0 million during FY14 pertains to the gain (net of income tax) on sale of the Company's operating mineral products plant in Lethbridge, Canada.

**Table 7: Historical Statements of Financial Position**

Balance Sheet	Audited	Reviewed	Audited	Unaudited
	30-Sep-15	31-Mar-16	30-Sep-16	31-Jan-17
	A\$'000	A\$'000	A\$'000	A\$'000
<b>CURRENT ASSETS</b>				
Cash and cash equivalents	5,974	12,561	13,305	7,928
Trade and other receivables	263	206	327	180
Inventories	1,398	1,314	2,116	2,342
Other financial assets	3,402	1,732	894	754
Derivative financial assets	-	1,600	976	650
Other current assets	236	107	97	130
<b>TOTAL CURRENT ASSETS</b>	<b>11,273</b>	<b>17,520</b>	<b>17,715</b>	<b>11,985</b>
<b>NON-CURRENT ASSETS</b>				
Property, plant and equipment	4,380	4,426	4,835	4,831
Mine development	7,461	9,960	22,587	34,207
Deferred tax assets	7	19	18	18
Other non-current assets	1,974	1,978	-	-
<b>TOTAL NON-CURRENT ASSETS</b>	<b>13,822</b>	<b>16,383</b>	<b>27,440</b>	<b>39,056</b>
<b>TOTAL ASSETS</b>	<b>25,095</b>	<b>33,903</b>	<b>45,155</b>	<b>51,042</b>
<b>CURRENT LIABILITIES</b>				
Trade and other payables	957	2,558	4,224	3,715
Interest bearing liabilities	19	165	908	2,233
Provisions	286	307	152	162
<b>TOTAL CURRENT LIABILITIES</b>	<b>1,262</b>	<b>3,030</b>	<b>5,284</b>	<b>6,110</b>
<b>NON-CURRENT LIABILITIES</b>				
Deferred tax liabilities	63	41	40	41
Interest bearing liabilities	65	335	11,916	17,927
Provisions	40	38	298	304
<b>TOTAL NON-CURRENT LIABILITIES</b>	<b>168</b>	<b>414</b>	<b>12,254</b>	<b>18,272</b>
<b>TOTAL LIABILITIES</b>	<b>1,430</b>	<b>3,444</b>	<b>17,538</b>	<b>24,382</b>
<b>NET ASSETS</b>	<b>23,665</b>	<b>30,459</b>	<b>27,617</b>	<b>26,660</b>
<b>EQUITY</b>				
Contributed Equity	87,836	97,532	97,532	97,532
Reserves	1,984	1,084	1,060	1,291
Retained earnings/(losses)	(66,155)	(68,157)	(70,975)	(72,163)
<b>TOTAL EQUITY</b>	<b>23,665</b>	<b>30,459</b>	<b>27,617</b>	<b>26,660</b>

Source: HSK annual report for the years ended 30 September 2014, 30 September 2015 and 30 September 2016 and unaudited management accounts as at 31 January 2017

105. We note the following in relation to HSK's recent financial position:

- Cash and cash equivalents increased from \$6.0 million as at 30 September 2015 to \$13.3 million as at 30 September 2016 primarily on account of the issue of share capital amounting to \$9.7 million as part of a rights issue and proceeds of \$13.2 million from the drawdown of the secured debt facility. Key cash outflows include progress payments relating to the construction of the Moberly Project of \$11.8 million and payments to suppliers and employees of \$4.8 million. Cash and cash equivalents decreased from \$13.3 million as at 30 September 2016 to \$7.9 million as at 31 January 2017, primarily in relation to cash payments for the development of the Moberly Project.
- The increase in Mine development from \$7.5 million as at 30 September 2015 to \$34.2 million as at 31 January 2017 reflects the capitalised expenditure and borrowing costs on the Moberly Project throughout this period.
- HSK has investments in listed equity instruments classified as 'Other financial assets' and these investments are valued on a fair value basis which is determined with reference to the quoted market bid price of these investments.
- HSK has entered into foreign currency forward contracts to manage USD:CAD exchange risks given the secured debt facility is denominated in USD and the majority of construction payments will be incurred in CAD. Derivative EBIT financial assets reflect the unrealised gain in fair value caused by movements in the USD:CAD forward exchange rates between the date of the instruments being taken out and the relative balance dates.
- Increase in Trade and other payables balances by \$3.3 million between 30 September 2015 and 30 September 2016 primarily reflects payables relating to the Moberly Project.
- Increases in interest bearing liabilities between 30 September 2015, 30 September 2016 and 31 January 2017 reflects the drawdown on the debt facility entered into with Taurus as well as an increase in finance leases and hire purchase contracts.
- HSK's auditor, EY, has issued an unqualified audit/review opinions in the audit /review reports accompanying the financial statements for the years ended 30 September 2015 and 30 September 2016, and the six-month period ended 31 March 2016.

## Forecast financial performance

### Management Forecasts

106. Management of HSK has prepared a detailed life of mine ('LOM') cash flow model for the Moberly Project ('Model') for a period of 32 years that falls within the timeframe of the mine permit (that ends on 16 March 2050).
107. The Model includes estimated future cash flows for both Stage One and Stage Two of the Moberly Project.

### Independent Technical Expert Review - CSA

108. HSK has engaged CSA to prepare a report providing a technical assessment of the Project assumptions underlying the Model ('Technical Report'). CSA's assessment involved the review and provision of input on the reasonableness of the assumptions adopted in the Model, including but not limited to:
- resources and reserves incorporated into the model for the Moberly Project;
  - mining physicals (including tonnes of silica mined, product yield/recovery and mine life);
  - processing physicals (including frac sand processed and produced based on effective utilisation rate and availability rate);
  - pricing expectations for frac sand and silica flour;
  - price and cost escalation during the life of the mine;

- production and operating costs (including but not limited to drilling and blasting, mining, haulage, processing, transport, barging, subcontractor production costs, general administration, distribution and marketing, contingencies and royalties or levies); and
- capital expenditure (including but not limited to project capital costs, sustaining capital expenditure, salvage value, rehabilitation and contingencies).

109. A copy of CSA's Technical Report is included in Appendix 7.

#### Summary of key assumptions

110. The assumptions provided below forming part of CSA's report (refer Appendix 7 for further details) were reviewed by HSK. Given that CSA was appointed to undertake an independent technical assessment of the Moberly Project including pricing and cost forecasts, sales forecasts, capital expenditure profile etc, we have relied on the CSA review for the below mentioned key assumptions underpinning the forecast cash flows.

#### Moberly resource estimate

111. HSK's latest estimates show that Moberly has 37.5 million tonnes of measured and indicated in situ silica resources suitable for frac sand, with a breakdown of the proven and probable reserve estimates provided below:

Reserve Category	Dry tonnes (millions) As at 30 September 2016
Proven	9.3
Probable	4.6
Total Proven and Probable <sup>^</sup>	13.9

<sup>^</sup> 30 mesh to 140 mesh, at 70% yield

Source: HSK announcement, 23 November 2016

#### Life of Mine

112. HSK's holds a government approved 35 year mine plan commencing 16 March 2015 - 2050. We note that HSK's current ore reserve estimate would support a mine life of greater than 35 years at the production rates adopted in the Model.

#### Forecast sales volumes

113. HSK has received an expression of interest (dated 17 February 2017) from Velvet Energy Ltd with regard to the Moberly Project based on its current proppant requirements for 2017 estimated to be between 100,000 to 150,000 tonnes of sand. In the absence of signed offtake agreements or supply contracts, and having regard to CSA's market analysis and the adopted pricing assumptions (discussed below), CSA has recommended the following sales projections (taking into account yield and efficiency factors, as discussed below):

Period Ended	Volume of Sales (tonnes/year)
31-Dec-17	100,000
30-Sep-18	200,000
30-Sep-19	260,610
Ongoing annual sales	260,610

Source: CSA Report (refer Appendix 7)

### Moberly Project frac sand pricing

114. CSA has recommended pricing assumptions based on estimated costs of major competitors (current and potential) to deliver sand to the main well fracking sites. Further, initial levels of pricing incentives were factored into the pricing matrix for the base price to enable HSK to obtain market share. CSA has recommended an initial base price of CAD\$65/tonne in Year 1 with an annual price increase of CAD\$5/tonne to reach CAD\$85/tonne in Year 5. The following table summarises CSA's recommended pricing assumptions:

Item (CAD\$)	Year 1	Year 2	Year 3	Year 4	Year 5
Frac Sand	\$65	\$70	\$75	\$80	\$85
Silica Flour	\$140	\$140	\$140	\$140	\$140

Source: CSA Report (refer Appendix 7)

### Yield

115. CSA has assumed an overall yield of 70% to the output from the Moberly mine, which is consistent with the value reported in the annual Mineral Resource and Ore Reserve statements completed by a Competent Person and released by HSK.

### Processing Plant Efficiency

116. CSA has reviewed the capabilities of the specified plant and has considered an effective utilisation rate of 85%, which is a combination of 92% plant availability and 92% plant utilisation rate. Changes in the product yield and overall efficiency have resulted in a recovery rate of 70% and a maximum production rate of saleable frac sand in Stage One of 260,610 tonnes per annum.

### Mining and Hauling Costs

117. HSK has entered into contractual agreements with Speers Construction Inc. to undertake the mining and drill and blast of material and a load and haul agreement with BNW Contracting for the loading of material at the mine and transportation to the processing plant. Rates for each of the tasks and respective contractors have been negotiated and signed for 2017 and 2018 as shown below.

Year	Speers Construction Inc. (Mining)	BNW Contracting (Load and Haul)
2017	CAD\$6.65/tonne	CAD\$6.65/tonne
2018	CAD\$6.50/tonne	CAD\$6.50/tonne

Source: CSA Report (refer Appendix 7)

118. CSA has assumed the long term mining and hauling costs to be CAD\$6.65/tonne for each process, which is then indexed.

### Processing cost inputs

119. The inputs for determining the processing costs of the material were completed on a first principle basis. The summary of the assumed inputs at full production are as shown below:

Parameter (In CAD\$)	Cost	Units
Labour - Technical services	607,000	Per annum
Labour - Operations	3,260,000	Per annum
On Cost	10% of Labour	Per annum
Flour Processing Cost	\$0.92	Per tonne
Raw Storage and Handling	\$0.22	Per tonne
Crushing/Screening Costs	\$0.62	Per tonne
Wet Process Costs	\$0.71	Per tonne
Drying Costs	\$2.01	Per tonne
Screening Costs	\$0.18	Per tonne
Load out Costs	\$0.09	Per tonne

Source: CSA Report (refer Appendix 7)

### Overheads

120. Overheads for both the onsite and head offices in Calgary and Melbourne are as indicated below:

Parameter	Cost	Units
General Office Expenses	CAD\$10,000	Per annum
Heating	CAD\$5,000	Per annum
Safety	CAD\$10,000	Per annum
Dust Control	CAD\$12,000	Per annum
Insurance	CAD\$50,000	Per annum
Mineral Tenures	CAD\$20,000	Per annum
Rail Siding Rental	CAD\$8,000	Per annum
Licences, Permit and other fees	CAD\$10,000	Per annum
Property	CAD\$20,000	Per annum
IT and Telecommunications	CAD\$20,000	Per annum
Garbage, Cleaning, Water	CAD\$8,000	Per annum
Freight Contracts	CAD\$10,000	Per annum
Others	CAD\$4,000	Per annum
Consultant, IT , Engineering etc	CAD\$25,000	Per annum
Quarry Tax	CAD\$0.15	Per tonne if >25,000 tonnes
Calgary and Melbourne Office	CAD\$3,000,000	Per annum

Source: CSA Report (refer Appendix 7)

### Capital cost inputs

121. The frac sand plant comprises a significant portion of the capital cost. The total capital costs (excluding contingencies) and estimated remaining spend as at 31 January 2017 is summarised below:

Parameter	Currency	Total Cost	Paid to 31 January 2017	Remaining Cost
Construction costs	CAD	25,553,133	12,202,024	13,351,109
Construction costs	USD	6,283,059	4,935,146	1,347,913
Other costs (admin, road, insurances)	CAD	2,896,575	2,132,320	764,255

*Note: the amounts in the above table correspond to financial completion, rather than physical completion (as referred to in CSA's Technical Report).*

*Source: Management*

122. CSA has estimated sustaining capital expenditure to be CAD\$400,000 to December 2017, with a long run assumption of CAD\$1.1 million per year thereafter on an inflation-indexed basis.

### Residual value

123. CSA has adopted a residual value based on 10% of capital expenditure costs. The estimate takes into account the ongoing capital expenditure throughout the period and the length of the forecast period.

### Depreciation

124. The Model has assumed vehicles are depreciated over four years with plant depreciated over seven years. Processing plant and equipment is assumed to have a residual value of 10% at the end of 30 years. The residual values of equipment and added as capital sales at the end of mine life.

### Royalty

125. The Model has assumed an annual royalty rate of 2% on revenue from sale of Frac Sand and Silica Flour, payable to Taurus, in accordance with the debt facility provided.

### Revenue and Cost Escalation

126. Revenues and costs are escalated at 1.6% per year in the Model.

### Taxes

127. The tax assumptions included in the Model are based on Canadian tax law and include an income tax payable to the Federal Government and a beneficial rate payable to the British Columbia Government for a combined rate of 26%.

### FX Rates

128. CSA have assumed a CAD:USD exchange rate of 1.37:1 for the USD components required for the plant.

### Stage Two of the Moberly Project

129. As discussed in the overview section, Stage 2 of the Moberly Project envisages an expansion of the nameplate capacity from 300,000 tonnes per annum to 600,000 tonnes per annum. However, CSA has not factored in the expansion scenario for the following reasons:

- Total demand of frac sand is not expected to reach peak 2014 levels until 2018 or 2019 which may support future expansion;
- Existing industry capacity is not expected to be exceeded before 2020 or later;
- Most frac sand suppliers are not currently profitable, so there is a strong incentive to improve prices; and



- The size of the Canadian frac sand market has been estimated to be between 3 million Mtpa/annum and 6 million Mtpa/annum and even on the lowest demand estimate and with the expected increase in market volume, the HSK long term sales target of 260,610 tonnes per annum is considered reasonable.

### Capital Structure

130. As at the date of the Target's Statement, the Company has the following Capital structure:

Share class	Number of shares on issue	Amount paid up
Ordinary shares	562,635,912	Fully paid
Employee shares	1,461,808	Fully paid
Class A \$0.25 ordinary shares	100,000	1 cent paid up, 24 cents unpaid
Class B \$0.50 ordinary shares	1,500,000	1 cent paid up, 49 cents unpaid

Source: Target's Statement

131. The most significant shareholders in HSK as at 28 March 2017 are detailed below:

Name	TOTAL No of ordinary shares held	Percentage of Issued Shares (%)	Date of Substantial Holder Notice
First Samuel Limited	195,069,619	34.67%	29 January 2016
NSC, its holding entities, their subsidiaries and its associates	194,703,557	34.59%	27 March 2017
Marc Rabinov and associated entities	37,210,699	6.61%	6 March 2017
<b>Total - top 3 shareholders</b>	<b>426,983,875</b>	<b>75.89%</b>	
Others	135,652,037	24.11%	
<b>Total Ordinary Shares on Issue</b>	<b>562,635,912</b>	<b>100.00%</b>	

Source: Target's Statement, HSK company announcements

132. The options issued to Taurus are outlined below:

Holder	Issue date	Number of Options	Exercise Price (\$)	Expiry Date
Taurus Resources No 2 BV	3 May 2016	1,576,215	\$0.0878	15 July 2020
Taurus Resources No 2 BV	10 August 2016	1,576,215	\$0.0878	15 July 2020
Taurus Resources No 2 BV	3 January 2017	1,576,215	\$0.0878	15 July 2020
Taurus Resources No 2 BV	28 February 2017	1,576,215	\$0.0878	15 July 2020
<b>Total Number of Options</b>		<b>6,304,860</b>		

Source: Target's Statement

133. The details of employee shares and employee rights to acquire are summarised below:

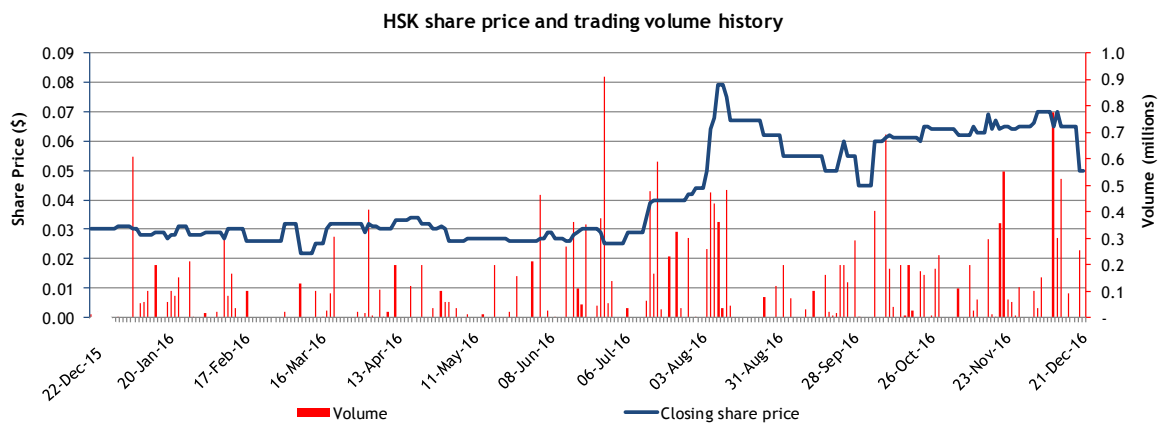
Holder	Number Vested	Number unvested	Total
Employee shares (allocated)	277,632 <sup>^</sup>	179,048 <sup>*</sup>	456,680
Employee shares (unallocated)	341,501 <sup>#</sup>	43,274 <sup>*</sup>	384,775
Employee rights to acquire	749,894 <sup>*</sup>	402,254 <sup>*</sup>	1,152,148
Total	1,369,027	624,576	1,993,603

Source: Target's Statement

<sup>^</sup> 190,294 of these vested shares are quoted on ASX and form part of 562,635,912 fully paid ordinary shares; 87,338 of these vested shares are not quoted on ASX and form part of 1,461,808 Employee Shares  
<sup>\*</sup> not quoted on ASX, currently forming part of 1,461,808 Employee Shares  
<sup>#</sup> these shares are quoted on ASX and form part of 562,635,912 fully paid ordinary shares.

### HSK share price and trading volume history

134. Information on the Offer was announced to the market on 22 December 2016. Therefore, the following chart provides a summary of the share price movement over the 12 months to 21 December 2016, which was the last trading day prior to the announcement.



Source: Bloomberg

135. The daily price of HSK shares from 22 December 2015 to 21 December 2016 has ranged from a low of \$0.022 on 8 to 11 March 2016 to a high of \$0.079 on 9 and 10 August 2016. The share price remained relatively steady at around \$0.03 from 22 December 2015 through to early July 2016. The share price then increased and reached a peak of \$0.079 on 9 and 10 August 2016 and was thereafter range bound between \$0.045 and \$0.075 through to 21 December 2016. The highest single day of trading by volume was on 28 June 2016, where 910,888 shares were traded.

136. During this period a number of announcements were made to the market. The key announcements are set out below:

Date	Announcement	Closing Share Price Following Announcement			Closing Share Price Three Days After Announcement		
		\$ (movement)			\$ (movement)		
24-Nov-16	2016 Preliminary Final Report	0.064	▼	1.5%	0.065	▲	1.6%
23-Nov-16	Heemskirk Mineral Resources and Ore Reserves Statement	0.065	▶	0.0%	0.065	▶	0.0%
27-Oct-16	Fourth Quarter Activities Report	0.064	▶	0.0%	0.064	▶	0.0%
28-Jul-16	Third Quarter Activities Report	0.042	▲	5.0%	0.044	▲	4.8%
25-May-16	Appendix 4D and Half Year Financial Report	0.026	▶	0.0%	0.026	▶	0.0%
14-Apr-16	Appointment of CEO in Canada	0.033	▶	0.0%	0.034	▲	3.0%
12-Apr-16	Second Quarter Activities Report	0.033	▲	10.0%	0.033	▶	0.0%
15-Feb-16	Moberly Project Financing Package	0.030	▶	0.0%	0.026	▼	13.3%
29-Jan-16	First Quarter Activities Report	0.028	▶	0.0%	0.029	▲	3.6%

Source: Bloomberg

137. An analysis of the volume of trading and the volume weighted average price ('VWAP') in HSK shares for the 12 months to 21 December 2016 is set out below:

Days prior to announcement	Share price low	Share price high	Cumulative Volume traded	As a % of Issued capital	VWAP
1 day	\$0.050	\$0.050	250,000	0.04%	\$0.050
10 days	\$0.050	\$0.070	2,198,240	0.39%	\$0.062
30 days	\$0.050	\$0.070	4,037,780	0.72%	\$0.064
60 days	\$0.05	\$0.070	6,862,572	1.22%	\$0.063
90 days	\$0.045	\$0.070	8,498,422	1.51%	\$0.062
180 days	\$0.025	\$0.080	17,194,938	3.06%	\$0.051
1 year	\$0.022	\$0.080	21,352,518	3.80%	\$0.047

Source: Bloomberg, BDOCF analysis

138. Trading in HSK's shares reflects a low level of liquidity, with 3.8% of the Company's current issued capital being traded in a twelve-month period.

## Capital Raisings

139. A summary of recent capital raisings undertaken by HSK is set out below:

Date	Note	Number of shares issued	Issue price	Amount raised
15-Dec-2015	3	330,854,387	\$0.03	9,926,000
17-Jul-2015	2	38,599,679	\$0.10	3,860,000
17-Jul-2015	1	13,250,000	\$0.10	1,325,000

Source: HSK annual reports for the years ended 30 September 2015 and 30 September 2016

Notes:

1. The Company raised \$9.9 million through a 10-for-7 fully underwritten Rights Issue.
2. Renounceable rights issue of 1 new share for every 5 shares held on 21 January 2015.
3. The Company issued 13.2 million fully paid shares by way of a private placement to institutional and sophisticated investors.

## 4. PROFILE OF NSC

### Structure of the Bidder Group

140. NSC is a Canadian private corporation incorporated in Alberta, Canada on 1<sup>st</sup> December 2016. The Bidder is a special purpose vehicle incorporated for the sole purpose of making the Offer and issuing the Share Consideration to HSK Shareholders who elect that alternative.
141. Other than its nominal share capital, the Bidder has no other assets or liabilities and the Bidder has no trading history. Accordingly, no financial statements have been included in the Bidder's Statement.
142. The directors of the Bidder are set out below:
- Martin Boland;
  - Stuart Love; and
  - Frank Turner.
143. Upon completion of the transaction, the Bidder intends to make additional appointments to the board of the Bidder in accordance with the framework set out in the Unanimous Shareholders Agreement. On this basis Mr Frank Turner is currently serving on an interim basis with a replacement independent non-executive director to be appointed upon completion of the Offer.

### The Bidder Group overview

144. The Bidder is owned 90.0% by Taurus, 9.86% by T2 LP (being a limited partnership investment vehicle established in the Cayman Islands) and 0.14% by T2 Trust (being an unlisted investment trust established under the laws of Australia). Taurus is wholly owned by Taurus Co-op, a holding entity also incorporated in the Netherlands. Taurus Co-op is in turn owned by T2 LP and T2 Trust (the T2 LP and the T2 Trust are known together as the "T2 Fund").
145. T2 LP is a limited partnership investment vehicle established in the Cayman Islands. T2 LP is a closed-end investment vehicle whose strategy is to invest in emerging mining and metals companies with projects primarily in the appraisal and development stages. The general partner of T2 LP is Taurus GP LLC, a Delaware limited liability company and a Cayman Island Registered foreign company.
146. T2 Trust is an unlisted investment trust established under the laws of Australia.
147. The T2 Fund is managed by Taurus Funds, an independent, global funds management group whose clients include institutional and high net worth individuals.
148. The Bidder Group and its associates had voting power of 34.59% in HSK shares as at 28 March 2017. The Bidder Group also holds 6,304,860 options to acquire securities in HSK. Taurus is also a lender to HSK under the Secured Facility Agreement.

## 5. VALUATION METHODOLOGY

### Fairness assessment overview

149. The Offer is fair if the fair market value per share of HSK before the Offer (on a control basis) is less than or equal to:
- the Cash Consideration; or
  - the fair market value of the Share Consideration (i.e. NSC shares) after the Offer (on a minority basis).
150. Accordingly, to undertake this comparison we have valued the shares in HSK before the Offer on a controlling basis and the shares in NSC after the Offer on a minority basis.
151. In accordance with RG 111.15, we have considered the fair market value of HSK on the basis of a knowledgeable and willing, but not anxious seller that is able to consider alternative options to the Offer. This approach does not take into account the particular circumstances of any specific transaction, and therefore we have not considered the likelihood or otherwise of financial distress of the Company in our fairness assessment.
152. The valuation methods we have considered are discussed below.

### Valuation methods

153. Details of common methodologies for valuing businesses and assets are included at Appendix 3. The principal methodologies which can be used are as follows:
- Discounted cash flow (DCF);
  - Capitalisation of maintainable earnings (COE);
  - Net asset value (NAV); and
  - Quoted market price basis (QMP).
154. We have also considered other market based methods, such as the resource multiple method of comparable companies and/or comparable transactions.
155. Set out below is a discussion of the valuation methods we consider appropriate for the purposes of undertaking our valuation assessment of HSK.

### Selected valuation methods for HSK pre Offer

156. We have applied the following methods to value HSK:
- Primary approach - Sum-of-Parts.
  - Secondary approach - QMP.

#### Sum-of-Parts

157. The Sum-of-Parts method estimates the market value of a company by separately valuing each asset and liability of the company ('Sum-of-Parts'). We have applied the DCF method to value the Moberly Project and cross checked our valuation by reference to implied resource multiples. HSK's investments in other listed entities were valued using a QMP approach and other assets and liabilities were primarily valued using a cost approach under the NAV method. We consider these methodologies appropriate for the following reasons:
- the DCF method was considered for HSK's flagship project, the Moberly Project, as its core value is in the future cash flows to be generated from the sale or development of this project;
  - HSK has secured funding to meet the capital costs of the Moberly Project, with additional funding only required for a working capital facility (and potential future expansion, if applicable);

- cash flows from the Moberly Project have a finite life, may vary substantially from year to year and can be reasonably estimated, rendering it suitable for the DCF valuation;
- HSK has sufficient proven and probable resources to apply the DCF method for the life of mine;
- the resource multiple valuation method was used as a cross check, noting that there is a limited number of relevant benchmark transactions involving silica projects;
- other assets and liabilities of HSK (including investments in other listed entities and debt) are not captured in the DCF analysis and have therefore been valued separately.

158. We have valued Moberly as at 31 January 2017 to align with the latest available balance sheet for HSK.

#### **QMP**

159. The QMP has been applied as a cross check to our overall Sum-of-Parts approach. HSK is listed on the ASX, which is a regulated and observable market where HSK's shares can be traded. However, in order for the QMP methodology to be considered appropriate, the Company's shares should be liquid and the market should be fully informed as to HSK's activities. We note that HSK's shares are relatively illiquid, with only 3.8% of shares being traded within 12 months prior to the Offer. Accordingly, the QMP has been applied as a cross check to our primary approach.

#### **Selected valuation method for NSC post Offer**

160. NSC is a special purpose vehicle incorporated for the sole purpose of holding HSK Shares and issuing the Share Consideration to HSK Shareholders who elect that alternative. Other than its nominal share capital, the Bidder has no other assets or liabilities and the Bidder has no trading history.
161. Accordingly, our valuation of NSC is based entirely on our valuation of HSK.
162. However, in accordance with ASIC's guidance on the application of RG 111.11 to Share Consideration, the value of NSC's shares have been valued on a minority basis.

#### **Other valuation considerations**

##### **Premium for Control**

163. We have valued HSK on a controlling basis (which incorporates a control premium), while NSC has been valued on a minority basis (incorporating a minority discount).
164. We have reviewed the control premiums paid by acquirers of mining companies listed on the ASX. Further details are contained in Appendix 4.
165. Based on our analysis, we consider an appropriate control premium to be 30% to 40%. The equivalent minority discount is 23% to 29%.

##### **Future events**

166. Future growth potential which may result from new activities, business initiatives, acquisitions and the like (which are not capable of estimation), is not within the scope of this valuation.
167. Since forecasts relate to the future, they may be affected by unforeseen events and they depend, at least in part, on management's actions in implementing the plans on which the forecasts are based. Accordingly, actual results may vary materially from the forecasts included in the Moberly LOM Model, as it is often the case that some events and circumstances do not occur as expected, or are not fully anticipated, and those differences may be material.

##### **Valuation in Accordance with APES 225**

168. This engagement has been conducted in accordance with professional standard APES 225 Valuation Services, as issued by the Australian Professional and Ethical Standards Board.

## 6. VALUATION OF THE MOBERLY PROJECT

### DCF valuation of the Moberly Project

169. We have elected to use the DCF to value the Moberly Project. The DCF estimates the fair market value by discounting the future cash flows arising from Moberly to their net present value.
170. Performing a DCF valuation primarily requires determination of the following:
- the expected future cash flows that Moberly is expected to generate; and
  - the appropriate discount rate to apply to the cash flows.

### Moberly - Future cash flows

171. In performing our valuation of HSK's Moberly Project using the DCF method we have relied on the Technical Report prepared by CSA dated 10 March 2017, which contains CSA's review of the technical project assumptions contained in the Moberly LOM Model.
172. CSA's Technical Report has been prepared in accordance with the Code of Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports ('the Valmin Code') and the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Resources ('JORC Code').
173. BDO has undertaken an analysis of the HSK's LOM Model which has involved the following:
- analysing the Model to confirm its integrity and mathematical accuracy;
  - reviewing the reasonableness of the assumptions adopted by HSK;
  - holding discussions with representatives of HSK regarding the LOM Model;
  - reviewing CSA's Technical Report, and where required, making changes to the LOM Model to reflect CSA's views as the technical expert;
  - performing sensitivity analysis on the value of the Moberly Project as a results of flexing selected assumptions and inputs;
  - calculating appropriate discount rates; and
  - preparing our own DCF valuation model.

### Key cash flow assumptions

174. The cash flows contained in the LOM Model have been evaluated through analysis, enquiry and review for the purposes of forming an opinion as to the value of the Moberly Project. We do not warrant that our enquiries have identified all of the matters that an audit, or due diligence and/or tax investigation might disclose. However, we believe that the information is reasonable for us to form an opinion as to the value of the Moberly Project and that there are reasonable grounds for the assumptions made in the LOM Model.

### *Operating cash flows*

175. The key operating cash flow assumptions for the Moberly Project (including the estimated residual value) are summarised in paragraphs 110 to 129 above. All operating assumptions have been reviewed by CSA. We have incorporated these assumptions into our valuation model.
176. We have adopted unlevered cash flows, i.e. cash flows of the Moberly Project, which are attributable to both debt and equity providers (this includes the royalty payable to Taurus under the current funding facility). We have taken into account HSK's current debt and additional funding requirements in our valuation of HSK's shares (refer to section 7).



*Forecast cash flow period - Life of Mine*

177. We have adopted a cash flow period of 30 years (from our valuation date) based on the following:
- CSA has adopted 30 cash flow periods (which equates to slightly less than 30 years due to partial periods);
  - A 30 year cash flow period is supported by HSK's latest estimate of proven reserves of 9.3 million tonnes of silica suitable for frac sand (at 30 mesh to 140 mesh and 70% yield); and
  - This cash flow period is covered by HSK's current mining permit (ending 16 March 2050).
178. Whilst HSK's probable and indicated resources may support a longer cash flow period, we did not consider it appropriate to go beyond 30 years, as there would also need to be a corresponding adjustment to the estimated residual value of the project provided by CSA. Nevertheless, we assessed the sensitivity of our valuation to a longer cash flow period.

*Economic assumptions*

179. The Model adopts inflation of 1.6% for both revenue and costs. We have compared the inflation assumptions in the Model against OECD forecasts and the five-year forecasts provided by the Economic Intelligence Unit. We have also had regard to the Bank of Canada's inflation-control target of 1% to 3% (mid-point of 2%). Overall, we consider the inflation assumptions in the Model to be reasonable.

*Foreign exchange rates*

180. All operating cash flows in the Model are denominated in Canadian dollars. Accordingly, the Moberly Project has been valued in Canadian dollars, and then converted to Australian dollars for purposes of forming our opinion on the Offer.
181. We have adopted a CAD:AUD exchange rate of 1.01 based on the spot and 30-day trailing average CAD:AUD rates as at 7 April 2017, as shown below:

Period	CAD:AUD
Spot (as at 7 April 2017)	1.0065
30-day trailing average	1.0199
	<b>1.01</b>

*Source: CapitalIQ*

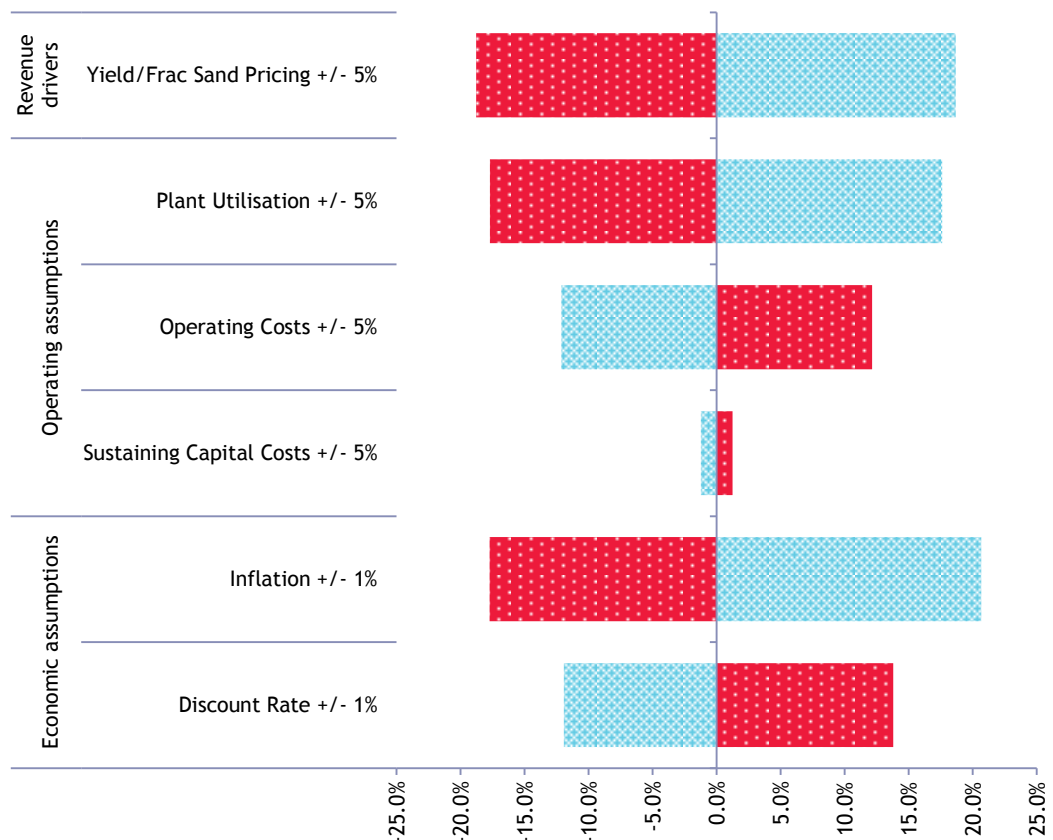
182. A small portion of remaining capital expenditure costs are denominated in US dollars. HSK's funding facility is also denominated in US dollars, but this does not affect the Canadian dollar value of the Moberly Project.
183. Management has converted the US dollar capital expenditure costs to Canadian dollars using an exchange rate of 1.37, which is the rate hedged by HSK.

**Moberly - Discount rate**

184. We have selected a nominal after-tax weighted average cost of capital ('WACC') of between 11.0% and 13.0% to discount the forecast cash flows from Moberly to present value.
185. Details of our discount rate determination are contained in Appendix 5.

### DCF valuation and sensitivity analysis

186. Adopting the cash flows and discount rate range discussed above, our base case valuation of the Moberly Project is **\$34.1 million to \$44.0 million**.
187. We have also analysed the sensitivity of our DCF valuation to changes in key assumptions in the Model. These sensitivities have been prepared to assist Shareholders in considering the potential impact on the value of the Moberly Project if our base case assumptions change. A summary of our sensitivity analysis is shown below:



Source: BDO analysis

188. We note the following from the sensitivity analysis:
- The value of the Moberly Project is highly sensitive to key revenue drivers (i.e. yield and frac sand pricing). Any change in these assumptions has a direct and corresponding impact on the free cash flows of the Moberly Project, without any additional costs.
  - We note that the valuation of the Moberly Project increases by approximately 15% if a flat price of CAD\$85/tonne (real) is adopted for the duration of the forecast period (as opposed to the ramp up from CAD\$65/tonne to CAD\$85/tonne over the first five years).
  - The value of the Moberly Project is also sensitive to changes in plant utilisation, but to a lesser extent than the revenue drivers, given an increase in plant utilisation is partially offset by an increase in operating costs.
  - The valuation is less sensitive to changes in operating costs and ongoing capital expenditure, given the quantum of these amounts relative to revenues.
  - The valuation is also sensitive to changes in the inflation and discount rate assumptions.
  - The Canadian dollar value of the Project is not sensitive to exchange rates given all operating cash flows and the majority of remaining capital expenditures are forecast in Canadian dollars.

189. We have also considered the sensitivity of the valuation to an increase in the life of mine and proceeding with the Stage 2 expansion of the Moberly Project.

#### **Increase in the Life of Mine**

190. We do not consider it appropriate to adopt a cash flow period longer than 30 years in our base case valuation without a corresponding adjustment to the residual value.
191. However, we note that Moberly has the reserves and resource potential, and a mining permit to operate beyond 30 years. All else equal, we note that the valuation of Moberly:
- increases by approximately 3% if the cash flows are extended to the end of the current mining permit (i.e. 16 March 2050); and
  - increases by 8% if the Model is extended to 46 years (reflecting the current estimate of frac sand silica reserves of 13.9 million tonnes and existing annual nameplate production of 300,000 tonnes per year).

#### **Stage 2 of the Moberly Project**

192. The Model allows for an analysis of the potential value of the Moberly Project if Stage 2 proceeds. It assumes additional capital costs of CAD\$18.0 million based on the 'order or magnitude' estimate provided in the Morrison Hersfield report and an increase in production capacity (before plant availability and plant utilisation factors are applied) to 600,000 tonnes per year, with all other assumptions remaining constant.
193. CSA notes that some components of the plant have already been oversized where feasible to allow for the future expansion, and space is available and building locations have been selected with future expansion in mind. CSA has also indicated that demand for frac sand silica may reach peak levels in 2018 or 2019 and that industry capacity may be reached after 2020, which in our view may support future expansion.
194. Nevertheless, we note that CSA has not factored the potential expansion into their assessment based on, inter alia, a need to improve pricing and improve profitability in the industry and the base case forecast volumes in the Model being reasonable given current industry conditions.
195. We also note that the current estimate of frac sand silica reserves for Moberly would not support production capacity of 600,000 tonnes per year for 30 years.
196. In our view, there is 'real option' value associated with the potential expansion. In particular, we note that Moberly has additional resource potential (with 37.5 million tonnes of measured and indicated resources) and it may be value accretive to ramp up production and utilise the reserves over a shorter period (notwithstanding the additional upfront capital costs).
197. Having regard to the level of uncertainty and currently available information, we are not able to form a reliable view on the potential value of the expansion. Accordingly, we do not consider it appropriate to take into account the potential expansion in our fairness assessment. However, we have considered the potential expansion in our reasonableness assessment.

#### **Valuation of the Moberly Project - implied resource multiple cross check**

198. We have considered the resource multiples of broadly comparable companies and transactions to cross check the reasonableness of our implied resource multiples for Moberly.
199. Information on comparable companies and transactions was gathered from CSA's Technical Report, CapitalIQ and other publicly available sources of information. We selected a group of comparable companies and transactions which we considered to be the most comparable to HSK due to:
- the nature of business activities;
  - exposure to a similar end user market; and
  - similar risks faced with respect to their ongoing business.

200. The resource multiple was determined by comparing the enterprise value to the attributable resources of the comparable companies. The enterprise value was based on the market capitalisation as at 31 January 2017, after including a premium for control of 35%. The attributable resources for the comparable companies were derived from a combination of public announcements and annual reports for the periods closest to our valuation date.
201. We note that our trading and transaction multiples may incorporate the value of resources as well as other operating assets.

**Trading multiple analysis**

202. We identified three broadly comparable public listed companies based on our search criteria. The company descriptions for these broadly comparable companies are set out in Appendix 6.
203. The table below sets out the enterprise value as a multiple of total resources for the comparable non-producing companies.

Company	Proven Resources ('000 Tonnes)	EV(\$AUDm)	\$AUD/Tonne
Hi-Crush	286,435	2,509	8.76
Fairmont Santrol	673,122	5,888	8.75
US Silica	294,285	8,119	27.59

*Source: CapitalIQ, other publicly available data, BDO analysis*

204. We note that the comparable companies are considerably larger than the Moberly Project and hence may trade at a premium to small projects given their size and economies of scale.

**Transaction multiple analysis**

205. We have also considered market transactions involving silica companies. Actual transactions of comparable assets can be regarded as the most tangible evidence of value. However, direct valid comparisons can be difficult due to the specific circumstances of each transaction. In particular:
- where the transaction recognised a special value to the purchaser;
  - if economic conditions and rates of return have changed;
  - if the parties did not have comparable negotiating abilities; and
  - where a degree of comparability between the assets being valued differs.
206. The transactions that have been identified represent controlling interests, and therefore incorporate a premium for control.
207. Transaction multiples have been calculated where adequate information was available.
208. The tables below set out the enterprise value to resource multiples for comparable transactions that we have identified.

*CSA transactions*

209. CSA has calculated the implied resource/reserve multiple for a number of companies, as summarised below.

Company	Date	Valuation Methodology	Value (AUDm)	Resource/Reserve Tonnage (Mt)	Implied Resource Value (\$AUD/t)
CRS Proppants LLC	Nov-14	Acquisition	225.0	163.1	1.38
Preferred Sands LLC	Jan-15	Acquisition	N/A	30.8	N/A
NBR Sand LLC	Jul-16	Acquisition	300.0	70.0	4.29
Smart Sand Inc	Nov-16	Initial Public Offering	53.2	336.0	0.16
Fairmount Santrol	Jul-16	Secondary Public Offering	230.8	N/A	N/A
Seymourville	Jul-05	Preliminary Economic Assessment	105.0	26.0	4.04
Firebag Project	Nov-14	Preliminary Economic Assessment	268.3	39.0	6.88
Emerald Quarries	2016	CSA Valuation	22.0	47.4	0.46

Source: CSA Technical Report

210. Of the transactions identified in CSA's Technical Report, we note that:

- a number of the values shown above are not calculated from market transactions (in particular, CSA considered the Emerald Quarries transaction to be the most relevant, but this valuation was based on CSA's own valuation rather than a market transaction);
- the majority of companies are significantly larger than Moberly;
- the transactions or valuations occurred a number of months or years before the valuation of Moberly, and market conditions have changed since that time; and
- the range of implied resource multiples varies considerably, and CSA has indicated this may be attributable to the varying production capacities of the respective silica projects.

*Additional transactions*

211. We have undertaken an additional search to identify transactions involving broadly comparable silica companies, and the results are summarised below.

Target	Date	Valuation Methodology	Value (AUDm)	Resource /Reserve Tonnage (Mt)^	Implied Resource Value (\$AUD/t)
Permian Basin Sand Company LLC	Feb-17	Acquisition	357.2	55.0	6.50
Hi-Crush Whitehall LLC	Feb-17	Acquisition	191.8	80.7	2.38
Hi-Crush Blair LLC	Aug-16	Acquisition	233.3	120.1	1.94
Canadian Sandtech Inc., Quarrying Leases and Equipment and Machinery	Nov-15	Acquisition	0.9	N/A	N/A
Three Properties in Alberta and Manitoba	Dec-14	Acquisition	1.8	N/A	N/A
Cadre Services, Inc.	Jul-14	Acquisition	104.7	N/A	N/A
Gossan Resources Ltd., Manigotagan Frac Sand Project	Jun-13	Acquisition	1.2	N/A	N/A

^ Tonnage estimates are not based on assessment by a Competent Person

Source: CapitalIQ, other publicly available data, BDO analysis

212. Of the additional transactions identified that involve silica companies, we note that:

- we were only able to calculate implied resource multiples for three transactions;
- all three transactions for which we calculated an implied multiple involve companies that are significantly larger than Moberly;
- the range of implied resource multiples varies considerably; and
- none of the companies or transactions are directly comparable to Moberly.

#### Moberly - Implied resource/reserve multiple

213. The implied multiples of our DCF valuation of Moberly are shown below (as at 31 January 2017, using the preferred value):

Company	Value (AUDm)	Proven Reserves Tonnage (MMt)	Implied Proven Reserve Value (\$AUD/t)	Resource/Reserve Tonnage (Mt)	Implied Resource Value (\$AUD/t)
Moberly - DCF valuation	39.1	9.3	4.2	37.5	1.04

Source: BDO analysis

214. On balance, given the limited number of relevant transactions involving silica companies and the wide range of multiples provided, the implied multiple cross check does not provide a significant amount of analytical support for our DCF valuation of the Moberly Project.

215. Nevertheless, we do not find the implied multiples for Moberly to be unreasonable.

## 7. VALUATION OF HSK

216. We have employed the Sum-of-Parts method in estimating the value of HSK's shares by aggregating the estimated fair market values of its underlying assets and liabilities, having regard to the following:

- the value of HSK's Moberly Project using the DCF method, as discussed in Section 6; and
- the value of other assets and liabilities of HSK, which are discussed below.

### Value of HSK's other assets and liabilities

217. All cash, working capital and derivative assets currently held by HSK have been captured in our DCF analysis of Moberly.

218. The only assets and liabilities that have not been captured in our DCF analysis for Moberly comprise financial assets (shares in other listed entities), net debt (i.e. interest bearing debt less cash on hand) and the fair market value of outstanding options.

#### Financial assets

219. HSK holds shares in three listed entities, the carrying value of which was \$0.75 million as at 31 January 2017 (refer to Table 7). These are surplus assets and have not been captured in the DCF analysis for Moberly.

220. We have obtained the current trading prices of these shares as at 7 April 2017 and note that the trading prices have declined slightly since 31 January 2017, albeit on small trading volumes.

221. We have adopted a value of \$0.62 million in our valuation of HSK.

#### Debt and additional funding requirements

222. The values attributable to debt and additional funding requirements have been assessed as at 31 January 2017 to align with the latest available balance sheet of HSK and our valuation date for Moberly.

223. HSK had \$20.2 million in current and non-current interest bearing liabilities of as at 31 January 2017.

224. Our DCF valuation of Moberly also shows that HSK will be required to draw down the remaining balance of the Taurus debt facility, and that additional funding of approximately \$7.0 million will also be required during 2017. Our DCF valuation implicitly assumes that this funding will be available to HSK.

225. We have not included any additional liabilities associated with transaction costs that have not been captured in HSK's 31 January 2017 balance sheet, but note that any such costs would further decrease the value of HSK's shares.

#### Valuation of outstanding options

226. There are 6,304,860 outstanding options to acquire securities in HSK, all of which are held by Taurus.

227. We have assessed the current fair market value of these options using a Black-Scholes valuation method to be \$368k, which we have subtracted from our valuation of HSK's shares.

#### Control premium

228. The DCF value of the Moberly Project and the values we have attributed to other assets and liabilities represent controlling values. Accordingly, we have not made any adjustments for a control premium.

### Fair market value of HSK prior to the Offer

229. The Sum-of-Parts valuation of HSK's shares is shown below:

Summary of Assessment (AUD \$000s)	Low value	High value	Preferred
Value of the Moberly Project	34,095	44,016	39,056
Add: Other financial assets	623	623	623
Less: Current interest bearing liabilities	(2,233)	(2,233)	(2,233)
Less: Non-current interest bearing liabilities	(17,927)	(17,927)	(17,927)
Add: Cash	7,928	7,928	7,928
Less: Value of options	(368)	(368)	(368)
<b>Equity value of HSK shares (controlling basis)</b>	<b>22,119</b>	<b>32,040</b>	<b>27,079</b>
Number of HSK shares	562,635,912	562,635,912	562,635,912
<b>Value per HSK share (AUD\$)</b>	<b>0.039</b>	<b>0.057</b>	<b>0.048</b>

Source: BDOCF analysis

230. As shown above, our valuation of a share in HSK ranges from \$0.039 to \$0.057 (on a control basis), with a preferred value of \$0.048.

### Valuation of HSK - QMP cross check

231. HSK trading prices represent trades in minority interests. Accordingly, we have incorporated a premium for control, as shown below.

A\$	1-day VWAP	30-day VWAP	1 year VWAP
VWAP to 21 December 2016 (day prior to Offer)	0.050	0.064	0.047
Control premium	35%	35%	35%
<b>QMP (controlling basis)</b>	<b>0.0675</b>	<b>0.0864</b>	<b>0.0634</b>

Source: Bloomberg, BDOCF analysis

232. HSK's trading prices are broadly in line with our valuation, but are higher when adjusting for a control premium. We note that the trading prices are based on relatively small volumes and may also incorporate the 'real option' value associated with the potential Stage 2 expansion of the Moberly Project, which is not explicitly included in our valuation.

233. We believe our DCF and Sum-of-Parts valuation approach for HSK is more robust, and therefore a more reliable basis to undertake the fairness assessment. Nevertheless, the results of our primary approach do not appear to be unreasonable based on the QMP cross check.



## 8. VALUATION OF NSC

### Fair market value of Share Consideration

234. The fair market value of the Share Consideration (i.e. an NSC share post-Offer) is equal to our valuation of HSK's shares, less a minority interest discount.
235. As noted in paragraph 165, we consider a minority discount between 23% and 29% to be appropriate. It follows that the value of NSC's shares post-Offer should be less than the value of HSK's shares pre-Offer.
236. Our valuation of NSC's shares is shown below:

Summary of Assessment (AUD \$000s)	Low value	High value	Preferred
Value of the Moberly Project	34,095	44,016	39,056
Add: Other financial assets	623	623	623
Less: Current interest bearing liabilities	(2,233)	(2,233)	(2,233)
Less: Non-current interest bearing liabilities	(17,927)	(17,927)	(17,927)
Add: Cash	7,928	7,928	7,928
Less: Value of options	(368)	(368)	(368)
<b>Equity value of NSC shares (controlling basis)</b>	<b>22,119</b>	<b>32,040</b>	<b>27,079</b>
Minority discount	29%	23%	26%
<b>Equity value of NSC shares (minority basis)</b>	<b>15,799</b>	<b>24,646</b>	<b>20,086</b>
Number of shares	562,635,912	562,635,912	562,635,912
<b>Value per share (AUD\$)</b>	<b>0.028</b>	<b>0.044</b>	<b>0.036</b>

*Note: the valuation of NSC is shown assuming 100% ownership of HSK and the Moberly Project. NSC may ultimately own less than 100%, but in these circumstances, we note that the number of shares would be proportionately lower such that the value per NSC share would be the same as set out above.*

*Source: BDOCF analysis*

237. As shown above, our valuation of a share in NSC ranges from \$0.028 to \$0.044 (on a minority basis), with a preferred value of \$0.036.

## 9. FAIRNESS ASSESSMENT

238. In undertaking our fairness opinion, we have had regard to RG 111.

239. RG 111.11 indicates that an offer is 'fair' if the value of the offer price or consideration is equal to or greater than the value of the securities the subject of the offer. The comparison must be made assuming:

- A knowledgeable and willing, but not anxious, buyer and a knowledgeable and willing, but not anxious, seller acting at arm's length.
- 100% ownership of the target company, irrespective of the percentage holding of the bidder or its associates in the target company.

240. The Offer is fair if the fair market value of a HSK share after the Offer on a minority basis is equal to or greater than the fair market value of a HSK share before the Offer (including a premium for control).

### Fairness assessment

#### Fairness of Cash Consideration Offer

241. The following table summarises the fairness assessment in relation to the Cash Consideration:

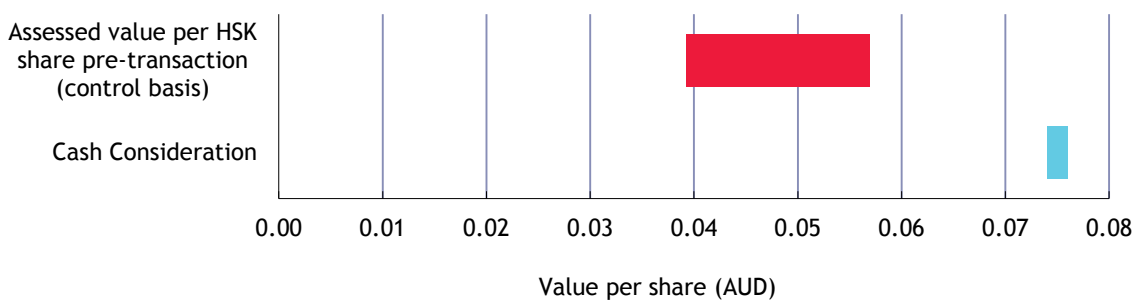
**Table 8: Fairness assessment - Cash Consideration**

A\$	Ref	Low	High	Preferred
Assessed value per HSK share (control basis)	Section 7	\$0.039	\$0.057	\$0.048
Cash Consideration		\$0.075	\$0.075	\$0.075

Source: BDOCF analysis

242. The Cash Consideration is higher than our assessed valuation range of HSK Shares. Accordingly, we conclude that the Offer is fair to HSK Shareholders electing to receive the Cash Consideration.

243. The chart below illustrates the difference between our assessment of the fair value of HSK compared to the Cash Consideration Offer.



Source: BDOCF analysis

**Fairness of Share Consideration Offer**

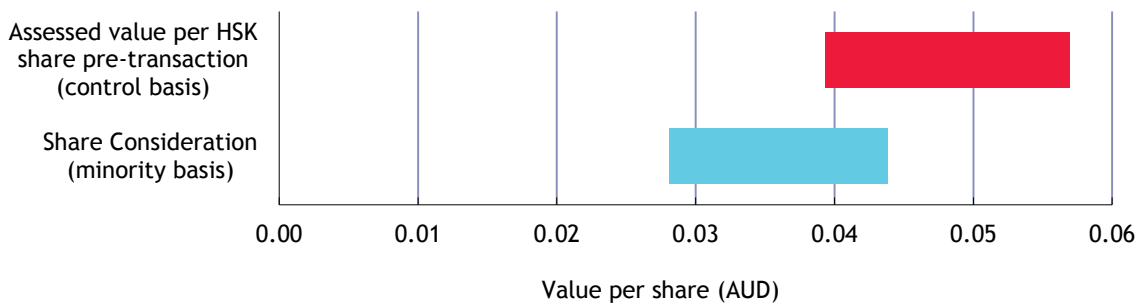
244. The result of our fairness analysis for the Share Consideration is summarised below:

**Table 9: Fairness assessment - Share Consideration**

A\$	Ref	Low	High	Preferred
Assessed value per HSK share (control basis)	Section 7	\$0.039	\$0.057	\$0.048
Share Consideration (minority basis)	Section 8	\$0.028	\$0.044	\$0.036

Source: BDOCF analysis

245. The chart below illustrates the difference between our assessment of the fair value of HSK compared to the Share Consideration.



Source: BDOCF analysis

246. Our valuation of the Share Consideration is lower than our assessed value of HSK's shares. The reason for the difference is due entirely to the application of a minority discount. However, the valuation range for the Share Consideration overlaps with our valuation range for HSK.

247. RG 111.11 indicates that an offer is 'fair' if the value of the offer price or consideration is equal to or greater than the value of the securities the subject of the offer. A strict interpretation of RG 111.11 may suggest that the Share Consideration Offer is fair due to the overlapping ranges.

248. However, we note that the valuation ranges only overlap as the minority discount is smaller than our valuation range for HSK. In our view, the value of the Share Consideration will always be lower than the value of shares in HSK, as the Share Consideration represents a minority investment in an unlisted company.

249. Accordingly, in our view the Share Consideration is 'not fair' to the shareholders of HSK.

250. We further note that the value of the Cash Consideration is superior to the value of the Share Consideration.

## 10. REASONABLENESS ASSESSMENT

251. Set out below is a summary of factors we have considered in our reasonableness assessment.

### Likelihood of alternative offers

252. We are unaware of any alternative Offer that might provide the Shareholders of HSK a premium over the value resulting from the Offer.

### Practical Level of Control

253. Under the conditions of the Offer there is a minimum acceptance condition of 90%. This means that, unless this condition is waived or varied, NSC may obtain anywhere from 90% to 100% of HSK. As such, should the Offer be successful, NSC will obtain significant control of HSK.
254. When shareholders are required to approve a resolution relating to a company, there are two levels of approval. These are general resolutions and special resolutions. A general resolution requires 50% of shares to be voted in favour to approve a matter and a special resolution requires 75% of shares on issue to be voted in favour to approve a matter.
255. Given that the Offer involves a minimum acceptance condition of 90%, NSC will be able to single-handedly block or approve both general and special resolutions on their own, if the Offer is successful.
256. Among other things, as detailed in section 3 of our Report, NSC's key intentions if they acquire more than 50.1% but less than 90% are to seek to implement the same intentions as if it were to acquire 90% or more of HSK's shares, including seeking board representation commensurate with the shareholding it acquires following the Offer. As such, NSC may also obtain board control.
257. NSC's control of HSK following the Offer will be significant when compared to all other shareholders.

### Consequences of not accepting the Offer

#### Shareholders that do not elect to take the Cash Consideration or Share Consideration

258. If the Bidder obtains a relevant interest in at least 90% of HSK shares and all other conditions are waived or satisfied, it intends on proceeding to compulsorily acquire any outstanding HSK shares. Shareholders that do not accept either the Cash or Share Consideration Offer will then receive the Cash Consideration.

#### Shareholders may become minority shareholders

259. In the event that the Offer becomes or is declared unconditional and the Bidder does not become entitled to compulsory acquire any outstanding shares, shareholders will retain their interest in HSK. It is likely those Shareholders will collectively become minority shareholders in HSK.
260. The Bidder's key intentions if more than 50.1% and less than 90% is acquired, which we consider may be of significant consequence to Shareholders, includes:
- The Bidder will seek board representation commensurate to its shareholding;
  - Apply for removal of HSK from the ASX if it is able to do so; and
  - Undertake an overall review of the operations, assets, capital structure and employees of HSK.
261. In these circumstances, the Bidder will be able to single-handedly pass and block general resolutions, as well as block special resolutions at Shareholders' meetings.

262. If NSC is unable to apply for removal of HSK from the ASX, given NSC will hold a significant shareholding in HSK, Shareholders that do not accept the Offer will be holding shares with a significantly reduced free float. This may lead to reduced liquidity and make it difficult for HSK Shareholders to sell HSK shares at or above the Offer Price. The Offer provides Shareholders with an immediate liquidity event, when trading in HSK's shares has been relatively illiquid in the 12 months prior to the Offer.
263. If NSC is able to, and is successful in applying for HSK to be removed from the ASX, the liquidity mechanisms for shareholders who elect to receive the Share Consideration, or who do not accept the Offer will be further limited, with the ability to monetise their holdings being reduced to off market transactions.

**Reduced potential for an alternative offer**

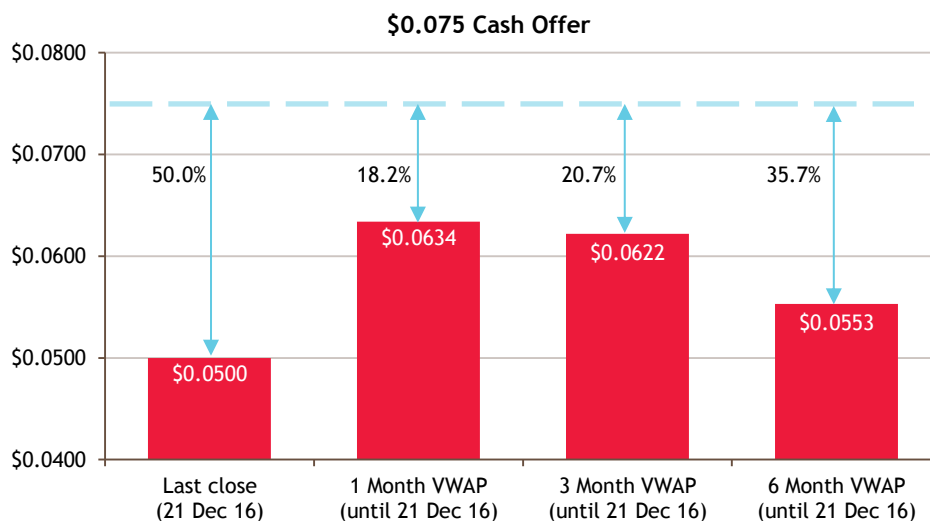
264. Similar to the above, in the case that NSC obtains a relevant interest in HSK of greater than 50.1% following the Offer, it would hold a significant shareholding and potential blocking stake in HSK.
265. We consider that the significant shareholding by NSC is likely to have a deterrent effect on the potential for an alternative offer to emerge for Shareholders who did not previously accept the Offer. More specifically, although the prospect of Shareholders realising a control value for their parcel of shares will be dependent on either NSC or another party offering an alternative proposal in the future, in our view the attractiveness of HSK as a potential takeover target will be significantly reduced.

**Advantages of accepting the Cash Consideration Offer**

266. As stated in Section 9, the Cash Consideration Offer is fair. RG 111 states that an offer is also reasonable if it is fair.

**HSK Shareholders are receiving a premium for loss of control**

267. The Offer Price of \$0.075 per HSK share, in cash, represents a premium of:
- 50.0% to the Last Close Price, being the price of HSK shares on ASX at the close of trading on 21 December 2016, the Trading Day prior to the Announcement Date, of \$0.05 per HSK share;
  - 18.2% to the HSK one-month volume weighted average price (VWAP) as at the Trading Day prior to the Announcement Date, of \$0.0634 per HSK share;
  - 20.7% to the HSK three month VWAP as at the Trading Day prior to the Announcement Date, of \$0.0622 per HSK share; and
  - 35.7% to the HSK six month VWAP as at the Trading Day prior to the Announcement Date, of \$0.0553 per HSK share.



**The Cash Consideration Offer provides an immediate liquidity event**

268. The Cash Consideration of \$0.075 per share provides Shareholders with cash certainty with respect to their investment returns which is an important consideration in instances where the securities that are the subject of the Offer exhibit low levels of liquidity.
269. In the case of HSK, as discussed earlier, only 3.80% of HSK's shares traded over a one-year period to 21 December 2016. In our view, this does not represent sufficient cumulative trading over a one-year period to conclude that HSK's shares exhibit a deep level of liquidity.
270. This implies that Shareholders may have greater difficulty liquidating their respective holdings on-market as opposed to accepting the Offer. This difficulty is further increased for those who hold large parcels of shares, and in the event they are unable to sell, their respective trades may cause disruptive movements in the quoted price for HSK's shares.

**The Cash Consideration Offer removes exposure to various risks**

271. The Offer removes the risks that Shareholders bear from continuing to hold HSK shares. These risks include, but are not limited to, the following:
- whether HSK will have access to sufficient funds from both debt and equity markets as and when required to meet its funding requirements on terms which are commercially acceptable and also repay its existing debt facilities;
  - the successful development of, and production from the Moberly mine; and
  - more broadly, the demand and supply markets for frac sand and the respective influences on the spot price of frac sand.

**The Cash Consideration Offer removes exposure to the risks of being minority shareholders in a non-listed entity**

272. In the event that all of the Offer's conditions are met, NSC will have corporate control over HSK, with other non-associated shareholders remaining as minority shareholders in the Company. Shareholders will have limited control over the future direction and operations of HSK if NSC becomes the majority shareholder.

**Disadvantages of accepting the Cash Consideration Offer****Shareholders will not benefit from potential future valuation upside**

273. We note that HSK is progressing with its development of the Moberly plant. The expected completion date of Stage 1 is 30 June 2017.
274. If Shareholders accept the Cash Consideration as part of the Offer, they will no longer hold a relevant interest in the Company, and will forgo any potential future upside in value once Moberly becomes fully operational. This may be reflected in a change in the forecast cash flows of the Project or a decrease in the risk profile.
275. Shareholders will also not be able to participate in the potential expansion of the Moberly Project, the impact of which could be material to the value of HSK's shares.

**Advantages of accepting the Share Consideration****Shareholders will retain a relevant interest in the Moberly Project**

276. HSK Shareholders who elect to receive the Share Consideration will receive shares in NSC and benefit from the potential future profits and capital growth that HSK may be able to realise (including Stage 1 and potentially Stage 2 of the Moberly Project).

**Certainty with respect to additional funding requirements**

- 277. As noted in Section 7, we have estimated that HSK requires additional funding of approximately \$7.0 million to meet working capital requirements of the Moberly Project and service the existing Taurus debt facilities. In the absence of additional funding arrangements, HSK may default on its debt service obligations.
- 278. To this effect, the Bidder has offered an underwritten working capital bridge financing facility to be available to the Company only if the Bidder has declared its offer free of all conditions. Accordingly, the bridge financing facility is dependent upon the Offer becoming unconditional.

**CGT rollover relief**

- 279. HSK is in the process of applying for an ATO class ruling in relation to the CGT rollover relief being available for HSK Shareholders who elect to receive the Share Consideration. The draft class ruling has been reviewed by RSM (NSC's tax advisor) who have advised that they expect the ATO to confirm the applicability of rollover relief to HSK Shareholders who elect to receive the Share Consideration.

**Disadvantages of accepting the Share Consideration**

**Superior offer**

- 280. Based on our fairness assessment, the Cash Consideration represents a superior offer.

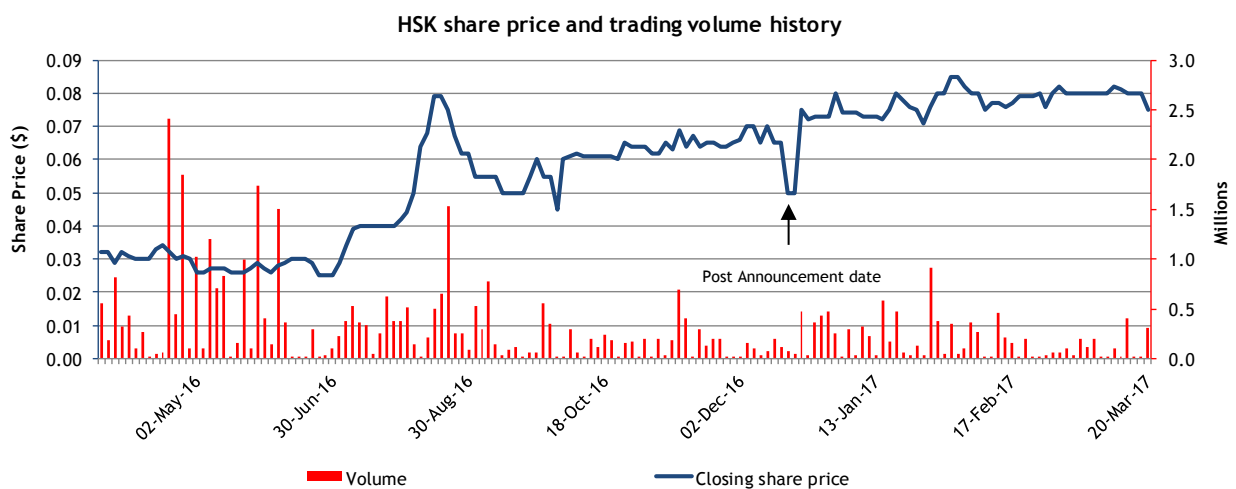
**Shareholders will hold a minority interest in a foreign, non-listed company**

- 281. Shareholders in HSK (being a listed company on the ASX) who elect to receive the Share Consideration will receive shares in a private unlisted company, NSC, to be domiciled in Canada. Accordingly, in the absence of a specific liquidity mechanism, the liquidity of NSC shares following the Offer is expected to be low which would limit the ability of HSK Shareholders to realise their investment.
- 282. Given that NSC is a private company domiciled in Canada, existing HSK Shareholders' will have limited access to information as compared to their current status as shareholders in a publicly listed company on the ASX.

**Other factors**

**Post announcement share price**

- 283. We have analysed movements in HSK's share price since the Offer was announced. A graph of HSK's share price since the announcement is set out below.



Source: CapitalIQ

284. The closing HSK share price on ASX on 21 December 2016, being the last Trading Day prior to the Announcement Date, was \$0.05.
285. The HSK share price has been trading above the Offer price post announcement of the Offer. The trailing 30-day VWAP as at 20 March 2017 was \$0.080 (based on trades representing 2.0% of issued capital). It is possible market expectations of a higher Offer are pushing the share price above the Offer price, notwithstanding that the Bidder has indicated it does not intend to increase the Offer price in the absence of a superior offer.
286. Having regard to our valuation of HSK and the pre-Offer trading prices, in our view it is likely HSK's share price will decline if the Offer does not proceed.

#### **Directors' recommendation**

287. The Directors have unanimously recommended that HSK shareholders accept the Cash Consideration Offer, in the absence of a superior proposal and subject to the Cash Offer being deemed fair and reasonable in this report.
288. The Directors have also advised that they are not aware of any alternative offers.

#### **Conclusion**

289. We have considered the terms of the Offer as outlined in the body of this report and have concluded that the:
- the Cash Consideration Offer is fair and reasonable to Shareholders; and
  - the Share Consideration Offer is neither fair nor reasonable to Shareholders.



## 11. QUALIFICATIONS, DECLARATIONS AND CONSENTS

### Qualifications

290. BDOCF is the licensed corporate finance arm of BDO East Coast Partnership, Chartered Accountants and Business Advisers. BDOCF provides advice in relation to all aspects of valuations and has extensive experience in the valuation of corporate entities and provision of expert's reports.
291. Mr Stephen Seear, B.Com, CA, is a director of BDOCF and a CA certified Business Valuations Specialist. Mr Seear is also a partner of BDO East Coast Partnership. Mr Seear has been responsible for the preparation of this IER.
292. Mr Seear has over 15 years' experience in Corporate Finance. He specialises in valuations, independent expert reports, financial modelling and other corporate finance services for a wide range of industries. Accordingly, Mr Seear is considered to have the appropriate experience and professional qualifications to provide the advice offered.
293. Mr Dan Taylor, B.Com and FCA, is a director of BDOCF and a CA certified Business Valuations Specialist. Mr Taylor is also a partner of BDO East Coast Partnership. Mr Taylor is the director responsible for the review of this IER.
294. Mr Taylor has over 20 years' experience in Corporate Finance. He has undertaken numerous specialist Corporate Finance activities including company valuations, due diligence investigations, preparation and review of business feasibility studies, preparation of independent expert's reports, preparation of information memoranda and other corporate investigations. Accordingly, Mr Taylor is considered to have the appropriate experience and professional qualifications to provide the advice offered.

### Independence

295. We are not aware of any matter or circumstance that would preclude us from preparing this IER on the grounds of independence either under regulatory or professional requirements. In particular, we have had regard to the provisions of applicable pronouncements and other guidance statements relating to professional independence issued by Australian professional accounting bodies and ASIC.
296. Prior to accepting this engagement BDO Corporate Finance (East Coast) Pty Ltd has considered its independence with respect to HSK and NSC and any of their respective associates with reference to ASIC Regulatory Guide 112 'Independence of Experts'. In BDO Corporate Finance (East Coast) Pty Ltd's opinion it is independent of HSK and NSC and their respective associates.
297. BDOCF was not involved in advising on, negotiating, setting, or otherwise acting in any capacity for HSK in relation to the Offer. Further, BDOCF has not held and, at the date of this IER, does not hold any shareholding in, or other relationship with HSK that could be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the Offer.
298. BDOCF will receive a fee of approximately \$75,000, plus Goods and Services Tax for the preparation of this IER. BDOCF will not receive any fee contingent upon the outcome of the Offer, and accordingly, does not have any pecuniary or other interests that could reasonably be regarded as being capable of affecting its ability to give an unbiased opinion in relation to the Offer.

### Disclaimer

299. This IER has been prepared at the request of the Directors and was not prepared for any purpose other than that stated in this IER. This IER has been prepared for the sole benefit of the Directors and HSK Shareholders. Accordingly, this IER and the information contained herein may not be relied upon by anyone other than the Directors and HSK Shareholders without our written consent. We accept no responsibility to any person other than the Directors and HSK Shareholders in relation to this IER.
300. The statements and opinions contained in this IER are given in good faith and are based upon our consideration and assessment of information provided by the Board, executives and management of all the entities.

## APPENDIX 1: GLOSSARY

Term	Definition
<b>ASIC</b>	Australian Securities & Investments Commission
<b>ASX</b>	Australian Securities Exchange
<b>Act</b>	Corporations Act 2001 (Cth)
<b>APES 225</b>	APES 225 <i>Valuation Services</i>
<b>AUD</b>	Australian Dollar
<b>BDOCF, we, our or us</b>	BDO Corporate Finance (East Coast) Pty Ltd (ABN 70 050 038 170)
<b>Board</b>	Board of directors of HSK
<b>Cash Consideration</b>	Cash consideration of \$0.075 for each Ordinary share held
<b>CAD</b>	Canadian Dollar
<b>COE</b>	Capitalisation of earnings
<b>CSA</b>	CSA Global Pty Ltd
<b>DCF</b>	Discounted cash flow method
<b>Directors</b>	Directors of HSK
<b>FOS</b>	Financial Ombudsman Service Limited
<b>FSG</b>	Financial Services Guide
<b>FYxx</b>	Financial year ended/ending 30 September 20xx
<b>HSK or the Company</b>	Heemskirk Consolidated Limited
<b>HSK Shareholders</b>	Existing shareholders of HSK
<b>IER</b>	Independent Expert's Report
<b>JORC Code</b>	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves
<b>Licence</b>	Australian Financial Services Licence No: 247420
<b>LOM</b>	Life of mine
<b>Model</b>	Detailed cash flow model of the Moberly Project
<b>Mtpa</b>	Metric tonnes per annum
<b>NAV</b>	Net asset value
<b>NPV</b>	Net present value
<b>Offer</b>	The off-market takeover offer by Taurus to acquire shares in HSK it does not currently own
<b>NSC or Bidder</b>	Northern Silica Corporation
<b>Project</b>	Moberly Project
<b>QMP</b>	Quoted market price basis
<b>RBA</b>	Reserve Bank of Australia
<b>RBC</b>	Reserve Bank of Canada
<b>Report or IER</b>	Independent expert's report
<b>RG 111</b>	ASIC Regulatory Guide 111 <i>Content of expert reports</i>
<b>RG 112</b>	ASIC Regulatory Guide 112 <i>Independence of experts</i>
<b>Share Consideration</b>	Scrip in the Bidder issued on a 1-for-1 basis to the number of HSK shares held by that HSK Shareholder
<b>Target Statement</b>	Target Statement of HSK
<b>Technical Report</b>	Report prepared by CSA
<b>USD</b>	US Dollar
<b>Valmin Code</b>	Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets
<b>Valuation Engagement</b>	An Engagement or Assignment to perform a Valuation and provide a Valuation Report where the Valuer is free to employ the Valuation Approaches, Valuation Methods, and Valuation Procedures that a reasonable and informed third party would perform taking into consideration all the specific facts and circumstances of the Engagement or Assignment available to the Valuer at that time.
<b>VWAP</b>	Volume Weighted Average Price

## APPENDIX 2: SOURCES OF INFORMATION

301. In preparing this IER, we had access to and relied upon the following principal sources of information:

- Draft Target's Statement dated on or about the date of this report;
- NSC's Bidder Statement dated 13 March 2017;
- Audited financial statements of HSK for the years ended 30 September 2014, 30 September 2015 and 30 September 2016;
- Reviewed financial statements of HSK for the six-month period ended 31 March 2016;
- Unaudited management accounts of HSK as at 31 January 2017;
- Independent Valuation Report of the Moberly Project dated 10 March 2017 performed by CSA;
- Baker Hughes Heemskirk Canada Proppant Technical Review dated October 2011;
- Moberly Frac Sand Final Feasibility Study dated 21 October 2011;
- Moberly Frac Sand Revised Feasibility Study dated 3 February 2015;
- PEC Consulting Technical Due Diligence Moberly Frac Sand Project Report dated March 13, 2015;
- Morrison Hershfield Expert Review and Commentary on Design and Proposed Operation: Moberly Frac Sand Development Report dated May 29 2015;
- Taurus US Dollar Term Facility Agreement dated 15 July 2015;
- Taurus Secured Facility Agreement - Novation and Amendment Deed dated February 2016;
- Ausenco Moberly Frac Sand Project: Project Status Report dated 17 September 2016;
- Ausenco Moberly Frac Sand Project: Project Status Report dated 7 December 2016;
- Ausenco Moberly Frac Sand Project: Review of December 2016 Cost Report dated 27 January 2017;
- Morrison Hershfield Expansion of current HCA facility to 600,000 Mtpa Report dated January 23 2017;
- Information in the public domain;
- Discussions with Directors and Management of HSK;
- Information sourced from Capital IQ, Connect 4 and Bloomberg; and
- ASIC guidance notes and regulatory guides as applicable.

## APPENDIX 3: VALUATION METHODS - BUSINESSES AND ASSETS

302. In conducting our assessment of the fair market value of HSK Shares the following commonly used business valuation methods have been considered:

### Discounted Cash Flow Method

303. The discounted cash flow (DCF) method is based on the premise that the value of a business or any asset is represented by the present value of its future cash flows. It requires two essential elements:
- the forecast of future cash flows of the business asset for a number of years (usually five to 10 years); and
  - the discount rate that reflects the riskiness of those cash flows used to discount the forecast cash flows back to net present value (NPV).
304. DCF is appropriate where:
- the businesses' earnings are capable of being forecast for a reasonable period (preferably 5 to 10 years) with reasonable accuracy;
  - earnings or cash flows are expected to fluctuate significantly from year to year;
  - the business or asset has a finite life;
  - the business is in a 'start up' or in early stages of development;
  - the business has irregular capital expenditure requirements;
  - the business involves infrastructure projects with major capital expenditure requirements; or
  - the business is currently making losses but is expected to recover.

### Capitalisation of Earnings Method

305. This method involves the capitalisation of normalised earnings by an appropriate multiple. Normalised earnings are the assessed sustainable profits that can be derived by the vendor's business and excludes any one off profits or losses. An appropriate earnings multiple is assessed by reference to market evidence as to the earnings multiples of comparable companies.
306. This method is suitable for the valuation of businesses with indefinite trading lives and where earnings are relatively stable or a reliable trend in earnings is evident.

### Net Asset Value

307. Asset based valuations involve the determination of the fair market value of a business based on the net realisable value of the assets used in the business.
308. Valuation of net realisable assets involves:
- separating the business or entity into components which can be readily sold, such as individual business Shares or collection of individual items of plant and equipment and other net assets; and
  - ascribing a value to each based on the net amount that could be obtained for this asset if sold.
309. The net realisable value of the assets can be determined on the basis of:
- *orderly realisation*: this method estimates fair market value by determining the net assets of the underlying business including an allowance for the reasonable costs of carrying out the sale of assets, taxation charges and the time value of money assuming the business is wound up in an orderly manner. This is not a valuation on the basis of a forced sale where the assets might be sold at values materially different from their fair market value;
  - *liquidation*: this is a valuation on the basis of a forced sale where the assets might be sold at values materially different from their fair market value; or

- *going concern*: the net assets on a going concern basis estimates the market value of the net assets but does not take into account any realisation costs. This method is often considered appropriate for the valuation of an investment or property holding company. Adjustments may need to be made to the book value of assets and liabilities to reflect their going concern value.
310. The net realisable value of a trading company's assets will generally provide the lowest possible value for the business. The difference between the value of the company's identifiable net assets (including identifiable intangibles) and the value obtained by capitalising earnings is attributable to goodwill.
311. The net realisable value of assets is relevant where a company is making sustained losses or profits but at a level less than the required rate of return, where it is close to liquidation, where it is a holding company, or where all its assets are liquid. It is also relevant to businesses which are being segmented and divested and to value assets that are surplus to the core operating business. The net realisable assets methodology is also used as a check for the value derived using other methods.
312. These approaches ignore the possibility that the company's value could exceed the realisable value of its assets.

### Quoted Market Prices

313. The application of the price that a company's shares trade on the ASX is an appropriate basis for valuation where:
- the shares trade in an efficient market place where 'willing' buyers and sellers readily trade the company's shares; and
  - the market for the company's shares is active and liquid.

### Market Based Assessment

314. The market based approach seeks to arrive at a value for a business by reference to comparable transactions involving the sale of similar businesses. This is based on the premise that companies with similar characteristics, such as operating in similar industries, command similar values. In performing this analysis, it is important to acknowledge the differences between the comparable companies being analysed and the company that is being valued and then to reflect these differences in the valuation.
315. The resource multiple is a market based approach which seeks to arrive at a value for a company by reference to its total reported resources and to the enterprise value per tonne/lb of the reported resources of comparable listed companies. The resource multiple represents the value placed on the resources of comparable companies by a liquid market.

## APPENDIX 4: CONTROL PREMIUM

### Control premium

316. Investment fundamentals dictate that the value of 100% of a company is normally greater than the sum of values attributable to the individual shares of that company based on transactions in minority share holdings.
317. The difference between the value of 100% of a company and the total value of minority share holdings is referred to as a premium for control taking into account control and synergistic benefits for the acquirer. Control of a company by a shareholder gives that shareholder rights to which minority shareholders are not entitled, including control of the company's policies and strategies, and use of cash flows of the company.
318. The level of premium for control paid in a takeover bid will vary across industries and is dependent upon the specifics of the company being acquired. We have reviewed the control premiums paid by acquirers of natural resources companies listed on the ASX and summarised our findings below:

Year	Number of Transactions	Average Deal Value (US\$m)	Average Control Premium
2016	5	49.33	79.44
2015	15	165.46	31.00
2014	15	108.84	34.85
2013	18	44.46	49.25
2012	20	129.36	44.61
2011	21	605.51	40.47
2010	25	733.60	43.27
2009	28	84.25	41.85
2008	8	553.76	38.87
	<b>Mean</b>	<b>295.51</b>	<b>42.44</b>
	<b>Median</b>	<b>34.13</b>	<b>37.93</b>

Source: Bloomberg, BDOCF analysis

319. In arriving at an appropriate control premium to apply we note that observed control premiums can vary due to the:
- Nature and magnitude of non-operating assets;
  - Nature and magnitude of discretionary expenses;
  - Perceived quality of existing management;
  - Market conditions and sentiment at the time of the transactions;
  - Commodity prices at the time of the transactions;
  - Nature and magnitude of business opportunities not currently being exploited;
  - Ability to integrate the acquiree into the acquirer's business;
  - Level of pre-announcement speculation of the transaction; and
  - Level of liquidity in the trade of the acquiree's securities.

320. Across the general Australian natural resources industry, the average annual control premium paid for effective control transactions since 2008 had a median of approximately 38%. We note that a majority of these transactions would have taken place at a time when commodity prices were significantly higher than the current levels. In addition, given the current state of equity capital markets, with companies finding it difficult to secure equity funding, we consider an appropriate control premium to be lower than the average control premiums presented above.
321. The average announced control premium was significantly higher in the year 2016 as a result of Todd Corp Ltd's acquisition of Flinders Mines Ltd on 17 March 2016 at an announced premium of 241.86%. In assessing the sample of transaction for general natural resources companies, which were included in the table, we noted transactions within the list that appear to be outliers. These outliers include 14 transactions where the announced control premium was in excess of 100% and 17 transactions where the acquirer obtained a controlling interest at a discount (i.e. less than 0%). In a sample where there are extreme outliers, the median often represents a superior measure of central tendency compared to the mean.
322. Taking the above factors into consideration in applying a control premium to HSK's quoted market share price we believe an appropriate range to be between 30% and 40%.

**Discount for minority interest**

323. A minority interest discount is the inverse of a premium for control and is calculated using the following formula:

$$1 - (1 / (1 + \text{control premium}))$$

324. Therefore, we have adopted a minority discount range between of 23% to 29%.

## APPENDIX 5: DISCOUNT RATE ASSESSMENT

325. Determining the correct discount rate, or cost of capital, for a business requires the identification and consideration of a number of factors that affect the returns and risks of a business, as well as the application of widely accepted methodologies for determining the returns of a business.
326. The discount rate applied to the forecast cash flows from a business represents the financial return that would be required before an investor would be prepared to acquire (or invest in) the business.
327. The capital asset pricing model ('CAPM') is commonly used in determining the market rates of return for equity type investments and project evaluations. In determining a business' weighted average cost of capital ('WACC') the CAPM results are combined with the cost of debt funding. WACC represents the return required on the business, whilst CAPM provides the required return on an equity investment.

### Cost of Equity and Capital Asset Pricing Model

328. CAPM is based on the theory that a rational investor would price an investment so that the expected return is equal to the risk free rate of return plus an appropriate premium for risk. CAPM assumes that there is a positive relationship between risk and return, that is, investors are risk averse and demand a higher return for accepting a higher level of risk.
329. CAPM calculates the cost of equity and is calculated as follows:

CAPM	
$K_e$	$= R_f + \beta \times (R_m - R_f) + \alpha$
Where:	
$K_e$	= expected equity investment return or cost of equity in nominal terms
$R_f$	= risk free rate of return
$R_m$	= expected market return
$R_m - R_f$	= market risk premium
$\beta$	= equity beta
$\alpha$	= specific risk premium

330. The individual components of CAPM are discussed below.

### Risk Free Rate (Rf)

331. The risk free rate is normally approximated by reference to a long term government bond with a maturity equivalent to the timeframe over which the returns from the assets are expected to be received.
332. Having regard to the period of operations for HSK's Moberly Project, we have adopted the 10-year average nominal yield to maturity on the 10-year Government of Canada bond as at 15 February 2017, which is 2.60%.

### Market Risk Premium (Rm - Rf)

333. The market risk premium represents the additional return that investors expect from an investment in a well-diversified portfolio of assets. It is common to use a historical risk premium, as expectations are not observable in practice.
334. We note that market risk premiums currently used for valuation purposes by a wide variety of analysts and practitioners are typically in the range 5-6%. In addition to this, a University of Navarra paper found the average of a sample of 127 market risk premiums for Canada used in 2016 to be 5.4%, using data provided by finance and economics professors, analysts and managers of companies.
335. For the purpose of our report, we have adopted a market risk premium of 5.5%.



## Equity Beta

336. Beta is a measure of the expected correlation of an investment's return over and above the risk free rate, relative to the return over and above the risk free rate of the market as a whole.
337. It is important to note that it is not possible to compare the equity betas of different companies without having regard to their gearing levels. Thus, a more valid analysis of betas can be achieved by 'ungearing' the equity beta by applying the following formula:

$$\beta_a = \frac{\beta_e}{1 + \left(\frac{D}{E} \times (1 - t)\right)}$$

338. In order to assess the appropriate equity beta for HSK's Moberly Project we have had regard to the equity betas of listed companies involved in similar activities in similar industry sectors. The geared betas below have been calculated using weekly data over a two-year period.

Company	Market Capitalisation (\$m)	Geared Beta	Debt/Equity	Ungearred Beta
Eagle Materials Inc.	6,570	1.10	11%	1.03
Fairmount Santrol Holdings Inc.	3,634	2.36	78%	1.61
Hi-Crush Partners LP	1,743	2.18	23%	1.91
U.S. Silica Holdings, Inc.	6,242	1.49	10%	1.41
<b>Mean</b>	<b>4,547</b>	<b>1.83</b>	<b>12%</b>	<b>1.51</b>
<b>Median</b>	<b>4,938</b>	<b>1.78</b>	<b>21%</b>	<b>1.49</b>

Source: CapitalIQ

## Selected Beta (β)

339. Based on the above analysis, we have selected an ungeared beta of 1.5 and a debt to equity ratio of 15% for our valuation of the Moberly Project.
340. As such, our regeared (equity) beta is 1.67.

## Specific Investment Risk Premium (α)

341. When applying the CAPM to a specific investment, it is common practice to apply a specific investment risk premium, often termed ('Alpha'). Determination of an appropriate alpha requires significant judgement.
342. The cash flows used in our valuation of Moberly capture a number of company specific and industry related risks and have been independently reviewed by CSA. However, certain risks are inherently difficult to capture in the cash flows, including:
- forecasting risk given the lack of operational history for Project;
  - the risks associated with HSK's additional funding requirements; and
  - construction risk.
343. Having regard to the overall discount rate inputs and the above risks, we have adopted a specific risk premium between 0% and 2.0% for purposes of our valuation.

## Cost of Equity

344. On this basis we have assessed the cost of equity to be:

Input	Value Adopted	
	Low	High
Risk free rate of return	2.6%	2.6%
Equity market risk premium	5.5%	5.5%
Geared Beta	1.67	1.67
Specific investment risk premium (α)	0.0%	2.0%
<b>Cost of Equity</b>	<b>11.8%</b>	<b>13.8%</b>

Source: CapitalIQ, BDO analysis

## Weighted Average Cost of Capital

345. The WACC represents the market return required on the total assets of the undertaking by debt and equity providers. WACC is used to assess the appropriate commercial rate of return on the capital invested in the business, acknowledging that normally funds invested consist of a mixture of debt and equity funds. Accordingly, the discount rate should reflect the proportionate levels of debt and equity relative to the level of security and risk attributable to the investment.

346. We have adopted the commonly used WACC formula for calculating a nominal, post-tax WACC, as shown below.

WACC	
WACC	$= \frac{E}{E+D} K_e + \frac{D}{D+E} K_d(1 - t)$
Where:	
$K_e$	= expected return or discount rate on equity
$K_d$	= interest rate on debt (pre-tax)
T	= corporate tax rate
E	= market value of equity
D	= market value of debt
(1-t)	= tax adjustment

## Gearing

347. Before WACC can be determined, the proportion of funding provided by debt and equity (i.e. gearing ratio) must be determined.

348. In determining a gearing ratio for HSK we have had regard to the capital structure of the selected comparable companies.

349. We have adopted a debt to equity ratio of 15.0% for purposes of our valuation.

### Cost of debt

350. We have adopted a pre-tax cost of debt for HSK of 10.0% having regard to HSK's current funding facility. Using the Canadian corporate tax rate of 26%, HSK's post-tax cost of debt is 7.4%.

### Calculation of WACC

351. Based on the above inputs we have adopted a WACC of 11.0% to 13.0% for our valuation of Moberly, as summarised in the table below.

Input	Low	High
Cost of Equity	11.8%	13.8%
Cost of Debt	7.4%	7.4%
Proportion of Equity	85%	85%
Proportion of Debt	15%	15%
<b>WACC</b>	<b>11.2%</b>	<b>12.9%</b>
<b>Adopted</b>	<b>11.0%</b>	<b>13.0%</b>

Source: CapitalIQ, BDO analysis

## APPENDIX 6: COMPANY AND TRANSACTION DESCRIPTIONS

### Comparable companies

352. Descriptions of the broadly comparable listed companies we have identified are shown below.

Company	Description
Eagle Materials Inc.	Eagle Materials Inc. produces and sells construction products and building materials for use in residential, industrial, commercial, and infrastructure construction in the United States.
Fairmount Santrol Holdings Inc.	Fairmount Santrol Holdings Inc., together with its subsidiaries, provides sand-based proppant solutions for exploration and production companies to enhance the productivity of their oil and gas wells.
Hi-Crush Partners LP	Hi-Crush Partners LP produces and supplies monocrystalline sand in the United States.
U.S. Silica Holdings, Inc.	U.S. Silica Holdings, Inc. produces and sells commercial silica in the United States.

Source: CapitalIQ

### Comparable transactions

353. Descriptions of transactions involving broadly comparable companies are shown below.

Target	Date	Acquirer	Description
Permian Basin Sand Company LLC	Feb-17	Hi-Crush Partners LP (NYSE:HCLP)	Permian Basin Sand Company LLC owns and operates frac sand reserves. The company was incorporated in 2016 and is based in Dallas, Texas. As of March 3, 2017, Permian Basin Sand Company LLC operates as a subsidiary of Hi-Crush Partners LP.
Hi-Crush Whitehall LLC	Feb-17	Hi-Crush Augusta Acquisition Co. LLC	The Partnership and Hi-Crush Augusta Acquisition Co. LLC, a wholly owned subsidiary of the Partnership ("Acquisition Co."), has entered into a contribution agreement with Hi-Crush Proppants to acquire Hi-Crush Whitehall LLC ("Whitehall"), the entity that owns Hi-Crush Proppants' raw frac sand processing facility located in Whitehall, Wisconsin. The Whitehall facility has 80.7 million tons of proven recoverable Northern White frac sand reserves on 1,447-acres, with an annual processing capacity of approximately 2.86 million tons of frac sand per year.
Hi-Crush Blair LLC	Aug-16	Hi-Crush Partners LP (NYSE:HCLP)	Hi-Crush Blair LLC excavates and processes raw frac sand for use in hydraulic fracturing operations for oil and natural gas wells. The company was incorporated in 2014 and is based in Blair, Wisconsin. As of August 31, 2016, Hi-Crush Blair LLC operates as a subsidiary of Hi-Crush Partners LP.

Target	Date	Acquirer	Description
Canadian Sandtech Inc., Quarrying Leases and Equipment and Machinery	Nov-15	North America Frac Sand, Inc. (OTCPK:NAFS)	As of August 6, 2015, the quarrying leases and equipment and machinery of Canadian Sandtech Inc. was acquired by North America Frac Sand, Inc.
Three Properties in Alberta and Manitoba	Dec-14	Brilliant Sands Incorporated (OTCPK:BRSD)	As of December 18, 2014, Three Properties in Alberta and Manitoba was acquired by Consolidated Goldfields Corporation. Three Properties in Alberta and Manitoba comprises mineral reserves of frac sand. The properties are located in Canada.
Cadre Services, Inc.	Jul-14	U.S. Silica Holdings, Inc. (NYSE:SLCA)	As of July 31, 2014, Cadre Services, Inc. was acquired by U.S. Silica Holdings, Inc. Cadre Services, Inc. produces frac-sand proppants and Hickory sand for oil and gas applications. Cadre Services, Inc. was formerly known as Tanner Companies, Inc. and changed its name to Cadre Services, Inc. in November 2008. The company was founded in 1984 and is based in Voca, Texas.
Gossan Resources Ltd., Manigotagan Frac Sand Project	Jun-13	Claim Post Resources Inc. (TSXV:CPS)	As of June 18, 2013, Manigotagan Frac Sand Project of Gossan Resources Ltd. was acquired by Claim Post Resources Inc. Gossan Resources Ltd., Manigotagan Frac Sand Project includes 9 quarry leases which comprises silicon sand spread over an area of approximately 306 hectares. The project is located in Manitoba, Canada.

Source: CapitalIQ, other publicly available information

## **APPENDIX 7: TECHNICAL EXPERT REPORT PREPARED BY CSA GLOBAL PTY LTD**

Sent under a separate cover