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This Document comprises a prospectus relating to Shefa Yamim (A.T.M.) Ltd. (the "Company") prepared in accordance with the Prospectus Rules of the Financial Conduct Authority (the "FCA") made under section 73A of FSMA and approved by the FCA under section 87A of FSMA. This Document has been filed with the FCA and made available to the public in accordance with the Prospectus Rules.

This document will be made available to the public in accordance with Prospectus Rule 3.2 by the same being made available, free of charge, at VSA Capital Limited, New Liverpool House, 15-17 Eldon Street, London, EC2M 7LD, and at the Company's registered office at 90 Herzl Street, P.O.Box 720, Netanya - 4210602, Israel.

Applications will be made to the UK Listing Authority and to the London Stock Exchange for all of the Shares in the Company (being the Existing Shares, the Subscription Shares and the Converted Debt Shares) to be admitted to the Official List of the UK Listing Authority (the "Official List") by way of a standard listing under Chapter 14 of the Listing Rules published by the UK Listing Authority under section 73A of FSMA as amended from time to time and to the London Stock Exchange for such Shares to be admitted to trading on the London Stock Exchange's main market for listed securities ("Admission"). Admission to trading on the London Stock Exchange's main market for listed securities constitutes admission to trading on a regulated market. No application has been made, or at this time is intended to be made, for all the Shares to be admitted for listing or dealt with on any other stock exchange. It is expected that Admission will become effective, and that unconditional dealings in the Shares will commence, at 8.00 a.m. on 18 December 2017.

THE WHOLE OF THE TEXT OF THIS DOCUMENT SHOULD BE READ BY PROSPECTIVE INVESTORS. YOUR ATTENTION IS SPECIFICALLY DRAWN TO THE DISCUSSION OF CERTAIN RISKS AND OTHER FACTORS THAT SHOULD BE CONSIDERED IN CONNECTION WITH AN INVESTMENT IN THE SHARES, AS SET OUT IN THE SECTION ENTITLED "RISK FACTORS" BEGINNING ON PAGE 8 OF THIS DOCUMENT.

The Directors whose names appear on page 24, and the Company, accept responsibility for the information contained in this Document. To the best of the knowledge of the Directors and the Company (who have taken all reasonable care to ensure that such is the case), the information contained in this Document is in accordance with the facts and contains no omission likely to affect its import.



Shefa Yamim (A.T.M.) Ltd.

(Incorporated in Israel under company number 512726217)

Issue of 223,139 Subscription Shares and 4,294,317 Converted Debt Shares and admission to the Official List of the Company's Enlarged Issued Share Capital (by way of a Standard Listing under Chapter 14 of the Listing Rules) and to trading on the London Stock Exchange's main market for listed securities



VSA Capital Limited
Financial Adviser and Broker

Apart from the responsibilities and liabilities, if any, which may be imposed on VSA Capital Ltd. ("VSA") by FSMA or the regulatory regime established thereunder, VSA does not accept any responsibility whatsoever for, or make any representation or warranty, express or implied, as to the contents of this Document or for any other statement made or purported to be made by it, or on its behalf, in connection with the Company or the Subscription Shares and nothing in this Document will be relied upon as a promise or representation in this respect, whether or not to the past or future. VSA accordingly disclaims all and any responsibility or liability, whether arising in tort, contract or otherwise (save as referred to above), which it might otherwise have in respect of this Document or any such statement.

Neither VSA, nor any of its representatives, is making any representation to any prospective investor in the Shares regarding the legality of an investment in the Shares by such prospective investor under the laws applicable to such prospective investor. The contents of this Document should not be construed as legal, financial or tax advice. Each prospective investor should consult his, her or its own legal, financial or tax adviser for legal, financial or tax advice.

VSA is authorised and regulated by the FCA and is acting exclusively for the Company and for no one else in connection with the production of this Document, the Subscription and/or Admission. VSA will not regard any other person as a client in relation to the production of this Document, the Subscription and/or Admission and will not be responsible to anyone other than the Company for providing the protections afforded to its clients, or for providing advice in connection with the production of this Document, the Subscription and/or Admission or any other matter, transaction or arrangement referred to in this Document.

This Document does not constitute an offer to sell or an invitation to subscribe for, or the solicitation of an offer or invitation to buy or subscribe for, Shares nor any other securities in any jurisdiction where such an offer or solicitation is unlawful or would impose any unfulfilled registration, publication or approval requirements on the Company.

The Shares have not been and will not be registered under the U.S. Securities Act of 1933, as amended (the "Securities Act"), or the securities laws of any state or other jurisdiction of the United States or under applicable securities laws of Australia, Canada or Japan. Subject to certain exceptions, the Shares may not be offered, sold, resold, transferred or distributed, directly or indirectly, within, into or in the United States or to or for the account or benefit of persons in the United States, Australia, Canada, Japan or any other jurisdiction where such offer or sale would violate the relevant securities laws of such jurisdiction.

The Shares have not been approved or disapproved by the US Securities and Exchange Commission, any State securities commission in the United States or any other US regulatory authority, nor have any of the foregoing authorities passed comment upon or endorsed the merits of the Subscription or adequacy of this Document. Any representation to the contrary is a criminal offence in the United States.

Application will be made for the Shares to be admitted to a Standard Listing on the Official List. A Standard Listing will afford investors in the Company a lower level of regulatory protection than that afforded to investors in companies with Premium Listings on the Official List, which are subject to additional obligations under the Listing Rules.

It should be noted that the UK Listing Authority will not have authority to (and will not) monitor the Company's compliance with any of the Listing Rules which the Company has indicated herein that it intends to comply with on a voluntary basis, nor to impose sanctions in respect of any failure by the Company to so comply.

NOTICE TO PROSPECTIVE INVESTORS IN ISRAEL

This document does not constitute a prospectus under Israeli Securities Law, 5728-1968 (the "Israeli Securities Law") and has not been filed with or approved by the Israeli Securities Authority. In Israel, this Document is being distributed only to, and is directed only at, and any offer of the ordinary shares and is directed only at (i) a limited number of persons in accordance with Section 15A(a)(1) of the Securities Law or (ii) investors listed in the First Addendum to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisers, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and "qualified individuals", each as defined in the First Addendum (as it may be amended from time to time), collectively referred to as qualified Israeli investors (in each case purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified Israeli investors will be required to submit written confirmation that they fall within the scope of the First Addendum.

12 December 2017

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SUMMARY

Summaries are made up of disclosure requirements known as “Elements”. These elements are numbered in Sections A - E (A.1 - E.7).

This summary contains all the Elements required to be included in a summary for this type of securities and issuer. Some Elements are not required to be addressed which means there may be gaps in the numbering sequence of the Elements.

Even though an Element may be required to be inserted in the summary because of the type of securities and issuer, it is possible that no relevant information can be given regarding the Element. In this case a short description of the Element is included in the summary with the mention of “not applicable”.

Section A – Introduction and warnings		
A.1	Introduction and warnings	<p>This summary should be read as an introduction to this Document.</p> <p>Any decision to invest in the Shares should be based on consideration of this Document as a whole by the investor. Where a claim relating to the information contained in this Document is brought before a court, the plaintiff investor might, under the national legislation of the EEA States, have to bear the costs of translating this Document before legal proceedings are initiated. Civil liability attaches only to those persons who have tabled this summary including any translation thereof but only if this summary is misleading, inaccurate or inconsistent when read together with the other parts of this Document or it does not provide, when read together with the other parts of this Document, key information in order to aid investors when considering whether to invest in such securities.</p>
A.2	Consent for intermediaries	Not applicable; there will be no resale or final placement of securities by financial intermediaries.

Section B – Issuer		
B.1	Legal and commercial name	The legal and commercial name of the issuer is Shefa Yamim (A.T.M.) Ltd.
B.2	Domicile/legal form/ legislation/ country of incorporation	<p>The Company was incorporated and registered in Israel on 6 January 1999 as a registered private company under the Israeli Companies Act Law under the name of Amply Sea's (A.T.M.) Ltd. On 1 August 2000, the Company's name was changed to its current name.</p>
B.3	Current operations/ principal activities and markets	<p>Shefa Yamim (A.T.M.) Ltd is a minerals exploration company, focused on the exploration for gemstones in Northern Israel. The Company currently has one exploration permit and two prospecting permits covering an area of more than 600km². These permits are granted by the Ministry of National Infrastructure, Energy and Water Resources of Israel.</p> <p>To date the Company has carried out an extensive exploration programme, and has delineated several potential primary sources and secondary deposits that host gemstones. Currently the Company is focusing on mapping, drilling of boreholes and taking bulk samples at the Kishon Mid Reach placer, the Company's priority target. The Company intends to continue its exploration programme with the aim of delineating a Mineral Resource that is compliant with the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves, (the “SAMREC”).</p> <p>In total the Company has carried out over 11kt of bulk sampling and has recovered a variety of different gemstones including precious stones. Findings include dark blue sapphires, the Carmel Sapphire, as well as deep red rubies, large natural moissanite crystals and hibonite. The Company has also recovered a number of diamonds, which would suggest that the volcanic bodies within the Company's permit area potentially have kimberlitic affinities (although at this stage alluvial bulk sampling data indicates that appreciable quantities of diamonds are not present in the deposits investigated to date).</p>

B.4a	Significant recent trends	<p>Based on the annual retail sales information, the value of the polished gemstone market is in the US\$3bn to US4bn range, while the global production of rough, gem-quality coloured gemstones is worth between US\$ 2bn and US\$3bn. The coloured gemstone market has seen rapid growth which has been driven primarily by coloured gemstones becoming more fashionable, with record prices being paid for jewellery at top auction houses. A significant portion of this demand comes from the emerging market economies, such as China and India, which are both experiencing growth in the middles classes and greater disposable income. Unlike the diamond industry, which has become transparent in part due to the marketing efforts by De Beers, the colour gemstone market is still unstructured. Coloured gemstones are primarily mined by relatively small scale or artisanal miners who rely on a network of dealers to deliver their products to the market. Also, not all gemstones are of sufficient quality and size to be used in jewellery. These stones do still find industrial application, but trade at a significantly discounted price versus gem quality stones.</p> <p>It should also be mentioned that the market fundamentals and pricing performance of diamond and coloured gemstone markets are separate and recent performance has been disparate. The coloured gemstone market has performed strongly as changing tastes in fashion and a more consistent supply of ethically sourced and high quality stones have developed.</p>																																																																							
B.5	Group structure	As at 11 December 2017 the Company is the 75% owned subsidiary of Shefa Yamim Ltd (the “Parent Company”), which is itself listed on the Tel Aviv Stock Exchange. The Company has no subsidiaries.																																																																							
B.6	Major Shareholders	<p>All Shareholders have the same voting rights in respect of the existing share capital of the Company.</p> <p>As at 11 December 2017 (being the latest practicable date prior to publication of this Document), the following Shareholder had interests in 3 per cent. or more of the Company’s share capital:</p> <table><tr><th rowspan="2">Shareholders</th><th colspan="2">As at the date of this Document</th></tr><tr><th>Number of Shares held</th><th>Percentage of Shares</th></tr><tr><td>Shefa Yamim Ltd</td><td>7,040,700</td><td>75.00%</td></tr><tr><td>Yosef Izhack Taub</td><td>420,000</td><td>4.47%</td></tr></table>	Shareholders	As at the date of this Document		Number of Shares held	Percentage of Shares	Shefa Yamim Ltd	7,040,700	75.00%	Yosef Izhack Taub	420,000	4.47%																																																												
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B.7	Selected historical key financial information	<p>The table below sets out summary of the financial information of the Company as derived from the audited consolidated financial statements of the Company for the years ended 31 December 2016, 31 December 2015 and 31 December 2014 and from the unaudited interim accounts for the six months to 30 June 2017.</p> <table><tr><th colspan="6">Statements of Comprehensive Income</th></tr><tr><th rowspan="2">NIS’000</th><th colspan="2">Six Months to 30 June</th><th colspan="3">Year Ended December 31</th></tr><tr><th>2017</th><th>2016</th><th>2016</th><th>2015</th><th>2014</th></tr><tr><td colspan="6">Costs and expenses</td></tr><tr><td>General and administrative expenses</td><td>(364)</td><td>(417)</td><td>(914)</td><td>(1,028)</td><td>(1,199)</td></tr><tr><td>Capital gain</td><td>-</td><td>41</td><td>178</td><td>37</td><td>-</td></tr><tr><td>Operating loss</td><td>(364)</td><td>(376)</td><td>(736)</td><td>(991)</td><td>(1,199)</td></tr><tr><td>Financial expenses</td><td>(560)</td><td>(57)</td><td>(383)</td><td>(153)</td><td>(191)</td></tr><tr><td>Financial income</td><td>208</td><td>246</td><td>570</td><td>834</td><td>756</td></tr><tr><td>Financial income, net</td><td>(352)</td><td>189</td><td>187</td><td>681</td><td>565</td></tr><tr><td>Loss for the year and comprehensive loss attributed to the Company shareholders</td><td>(716)</td><td>(187)</td><td>(549)</td><td>(310)</td><td>(634)</td></tr><tr><td>Basic and diluted loss per share attributed to the Company shareholders</td><td>(0.076)</td><td>(0.020)</td><td>(0.058)</td><td>(0.033)</td><td>(0.068)</td></tr></table>	Statements of Comprehensive Income						NIS’000	Six Months to 30 June		Year Ended December 31			2017	2016	2016	2015	2014	Costs and expenses						General and administrative expenses	(364)	(417)	(914)	(1,028)	(1,199)	Capital gain	-	41	178	37	-	Operating loss	(364)	(376)	(736)	(991)	(1,199)	Financial expenses	(560)	(57)	(383)	(153)	(191)	Financial income	208	246	570	834	756	Financial income, net	(352)	189	187	681	565	Loss for the year and comprehensive loss attributed to the Company shareholders	(716)	(187)	(549)	(310)	(634)	Basic and diluted loss per share attributed to the Company shareholders	(0.076)	(0.020)	(0.058)	(0.033)	(0.068)
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Statement of Financial Position					
NIS'000	Six Months to 30 June		Year Ended December 31		
	2017	2016	2016	2015	2014
Non-Current Assets					
Fixed assets	1,727	2,144	1,946	2,240	995
Loan to the parent company	1,135	1,093	1,116	1,076	1,037
Interested parties	77	77	77	77	77
Assets for exploration and evaluation of precious stones	53,293	48,437	51,500	46,511	42,975
Deferred issuance expenses	1,718	88	905	56	-
Total non-current assets	57,950	51,839	55,544	49,960	45,084
Current Assets					
Cash and cash equivalents	700	1	1	1	1
Deposit in bank	175	192	192	195	194
Receivables	289	255	288	114	54
Total current assets	1,164	448	481	310	249
Total Assets	59,114	52,287	56,025	50,270	45,333
Shareholders' Equity	49,064	46,822	48,820	45,700	40,921
Non-current Liabilities					
Long-term loans from bank and others	725	899	778	1,018	914
Financial leasing	70	111	91	131	-
Liability for severance pay	112	202	120	177	170
Total Non-current Liabilities	907	1,212	989	1,326	1,084
Current Liabilities					
Short-term credit from banks and others	1,202	578	696	517	809
Trade payables	938	498	649	504	290
Interested party	2,138	2,201	2,308	1,225	1,286
Other accounts payable	3,311	976	1,835	998	943
Loans convertible to shares	1,554	-	728	-	-
Total current liabilities	9,143	4,253	6,216	3,244	3,328
Total Shareholders' Equity and Liabilities	59,114	52,287	56,025	50,270	45,330
Statement of Cash Flow					
NIS'000	Six Months to 30 June		Year Ended December 31		
	2017	2016	2016	2015	2014
Cash flows from operating activities					
Loss for the year	(716)	(187)	(549)	(31)	(634)
Appendix A - Adjustments required to reconcile loss for the year to net cash used in operating activities	101	(242)	(151)	(503)	(792)
Net cash used in operating activities	(615)	(429)	(700)	(813)	(1,426)
Cash flows from investing activities					
Purchase of fixed assets	(67)	(213)	(305)	(1,346)	(160)
Consideration from sale of fixed assets	-	43	180	91	-
Investment in exploration and evaluation assets	(1,577)	(865)	(2,638)	(3,233)	(4,003)
Interest received	186	228	530	794	720
Loan rendered to parent company	-	-	-	-	(1,000)

		<p>Net cash used in investing activities (1,458) (807) (2,233) (3,694) (4,443)</p> <p>Cash flows from financing activities</p> <p>Proceeds From share issue (includes premium)) 777 1,309 2,794 4,680 6,276</p> <p>Increase in deferred issuance expenses (666) (32) (239) (56) -</p> <p>Credits from banks and others, net 578 60 168 (51) (46)</p> <p>Repayment of loans from interested parties, net (53) (25) (101) (95) (101)</p> <p>Receipt of loans convertible to shares 577 - 504 - -</p> <p>Receipt of long-term loans 1,647 - - 200 -</p> <p>Repayment of long-term loans (20) (27) (46) (70) (145)</p> <p>Interest received, net (78) (48) (157) (101) (113)</p> <p>Net cash provided by financing activities 2,762 1,237 2,923 4,507 5,871</p> <p>Linkage differences in regard to cash and cash equivalents 10 (1) 10 - (2)</p> <p>Increase in cash and cash equivalents 699 - - - -</p> <p>Cash and cash equivalents at the beginning of the year 1 1 1 1 1</p> <p>Cash and cash equivalents at the end of the year 700 1 1 1 1</p> <p>There were no significant changes to the Company's financial condition and operating results during the period covered by the historical financial information. The six months to 30 June 2017 saw an increase in the Company's cash position by approximately NIS 700,000 and an increase in the Company's current liabilities, primarily due to convertible loans and other payables.</p>
B.8	Selected key pro forma financial information	Not applicable; this Document does not contain pro forma financial information.
B.9	Profit forecast	Not applicable; this Document does not contain a profit forecast or estimates.
B.10	Description of the nature of any qualifications in the audit report on the historical financial information	Not applicable; There are no qualifications in the accountant's reports on the historical financial information.
B.11	Working capital	The Company is of the opinion that it has sufficient working capital, taking into account the Net Proceeds from the Subscription and the Converted Debt, for its present requirements, that is for at least 12 months from the date of this Document.

Section C – Securities		
C.1	Type and class of the securities admitted to trading	<p>The securities being admitted to trading are the ordinary shares of nominal value of NIS 1.00 each (the “Shares”).</p> <p>The ISIN of the Shares is IL0011101057. The SEDOL of the Shares is B2QF5R4.</p>
C.2	Currency of the securities issue	The Shares are denominated in New Israeli Shekels.
C.3	Issued share capital	<p>At the date of this Document, the Company had 9,387,600 Shares with a par value of NIS 1.00 per share in issue.</p> <p>Following the issue of the New Shares the Company will have 13,905,056 Shares with a par value of NIS 1.00 shares in issue.</p>
C.4	Rights attaching to the securities	The Subscription Shares and the Converted Debt Shares, when issued and fully paid, will rank <i>pari passu</i> in all respects with the Existing Shares and will rank in full for all dividends and other distributions thereafter declared, made or paid on the share capital of the Company
C.5	Restrictions on free transferability of the securities	There are no restrictions on the free transferability of the Shares subject to compliance with applicable securities laws. The Company’s fully paid Shares are issued in registered form and may be freely transferred under the Articles of Association, unless the transfer is restricted or prohibited by another instrument, applicable law or the rules of a stock exchange on which the Shares are listed for trade. The ownership or voting of the Shares by non-residents of Israel is not restricted in any way by the Articles of Association or the laws of the State of Israel, except for ownership by nationals of some countries that are, or have been, in a state of war with Israel.
C.6	Admission to trading	Application will be made for the admission of the Company’s entire issued share capital to the Standard Listing segment of the Official List maintained by the FCA and to trading on the Main Market. It is expected that Admission will become effective, and that dealings in the Shares will commence at 8.00 a.m. on 18 December 2017.
C.7	Dividend policy	<p>The Company has never declared or paid any cash dividends on its share capital. The Company’s current intention is to retain any future earnings for development, operation and expansion of its business and the Company does not anticipate declaring any dividends in the foreseeable future</p> <p>Under the Israeli Companies Law, dividend distributions are determined by the board or directors and do not require the approval of the shareholders of a company unless the company’s articles of association provide otherwise. The Articles of Association do not require shareholder approval for a dividend distribution and provide that dividend distributions may be determined by the Board.</p> <p>Pursuant to the Israeli Companies Law, the distribution amount is limited to the greater of retained earnings or earnings generated over the previous two years, according to the last reviewed or audited financial statements, provided that the end of the period to which the financial statements relate is not more than six months prior to the date of the distribution. If the Company does not meet such criteria, then it may distribute dividends only with court approval. In each case, if the Board and the court, if applicable, determines that there is no reasonable concern that payment of the dividend will prevent the Company from satisfying its existing and foreseeable obligations as they become due.</p>

Section D – Risks

D.1	Key information on the key risks that are specific to the Company or its industry	<ul style="list-style-type: none"> • The Company is currently at an early stage of development and has yet to commence operations at the Kishon Mid Reach Project. The Company currently has no cash producing properties and therefore no positive cash flow. The Company will continue to have negative operating cash flow until commercial production is reached. • The Company's currently projected source of income is the Kishon Mid Reach Project. Any adverse development affecting the project or the granting of the permits would have a material adverse effect on the Company. However, from the Company's past experience and in accordance with the provisions of the mining ordinance of Israel, as long as the Company fulfils the provisions of the work plan specified in the permit or licence, there is no expected impediment to granting the licence. • The Company's revenues and profitability will depend substantially on the prevailing market price of coloured gemstones. • Global demand for coloured gemstones is driven primarily by their use in jewellery. However, not all gemstones are of sufficient quality and size to be used in jewellery. These stones do still find industrial application, but trade at a significantly discounted price versus gem quality stones. • The Company intends to sell all types of gemstones that are recovered from its mining operations to retailers, wholesalers and directly to consumers. The market for coloured gemstones is still relatively opaque compared to that of diamonds. Coloured gemstones are still primarily mined by relatively small scale or artisanal miners who rely on a network of dealers to deliver their products to the market.
D.3	Key information on the key risks that are specific to the securities	<ul style="list-style-type: none"> • Notwithstanding the fact that an application will be made for the Shares to be admitted to the Standard Listing segment of the Official List, this should not be taken as implying that there will be a liquid market in the Shares and, accordingly, it may be more difficult for investors to sell their Shares. The share price of publicly traded companies can be highly volatile and subject to wide fluctuations in response to a variety of factors, which could lead to losses for Shareholders. • Investors may not be able to realise returns on their investment in Shares within a period that they would consider to be reasonable. • Future issues of Shares could be dilutive. It may be necessary or desirable, at some future time, for the Company to issue additional Shares to fund the growth plans of the Company. Any such issue would dilute the interests of Shareholders and could impact upon the price of the Shares. • Following Admission, the Parent Company will hold approximately 48.91% per cent of the Enlarged Share Capital. Notwithstanding the Relationship Agreement, there is no guarantee that the Parent Company's interests will coincide with the interests of other Shareholders. The Parent Company may cause the Company to take actions that are not in the interests of the Company or its other Shareholders. • Application will be made for the Shares to be admitted to a Standard Listing on the Official List. A Standard Listing will afford investors a lower level of regulatory protection than that afforded to investors in a company with a Premium Listing, which is subject to additional obligations under the Listing Rules. • Admission should not be taken as implying that there will be an active trading market for the Shares. Even if an active trading market develops, the market price for the Shares may fall below the Subscription Price and may not reflect their underlying asset value.

Section E – Offer		
E.1	Net proceeds/ estimate of expenses	The Net Proceeds of the Subscription and the Converted Debt are approximately £4.2 million. The total expenses incurred (or to be incurred) by the Company in connection with Admission are approximately £0.76 million.
E.2a	Reasons for the offer/use of proceeds/net amount of proceeds	<p>The anticipated Net Proceeds will be used in accordance to the Company's 18 month business plan. This will include the purchase of capital equipment, further drilling and bulk sampling and the completion of a pre-feasibility study to advance the Company's Kishon Mid-Reach placer. The remaining proceeds will be applied to working capital and general corporate purposes.</p> <p>The total amount of capital required to purchase mining equipment and to continue exploration activities at the Kishon Mid Reach excluding certain non-core costs, is estimated to be approximately NIS 4,630,000.</p>
E.3	Terms and conditions of the offer	<p>The Subscription is conditional, <i>inter alia</i>, on Admission having become effective at or before 8.00 a.m. on 18 December 2017 or such later time and date as the Company and VSA may agree being not later than 8.00 a.m. on 17 January 2018. The Subscription Price is 110 pence.</p> <p>The Directors have received irrevocable undertakings from new and current investors to subscribe for 223,139 Shares in aggregate at the Subscription Price. The undertakings are unconditional and may not be withdrawn other than on a failure of the Company to achieve Admission.</p>
E.4	Interests material to the issue/ conflicting interests	The interests of the Parent Company, prior to the Admission, represents 75% of the issued share capital of the Company as at the date of this Document and are expected to represent approximately 48.91% of the Enlarged Issued Share Capital following Admission. Save as set out herein, there are no interests, known to the Company, material to Admission or which are conflicting interests.
E.5	Name of the offer or/lock up agreements	<p>Not applicable. No person or entity is offering to sell the Shares.</p> <p>Each of the Directors, VSA, 101 Gold Holdings Limited, Eight-O-eight Global Corp. and the Parent Company have agreed that they shall not, offer, sell, contract to sell, pledge or otherwise dispose of any Shares which they hold directly or indirectly in the Company, for a period of 12 months commencing on Admission.</p> <p>The restrictions on the ability of those locked-in parties to transfer their Shares are subject to certain usual and customary exceptions.</p>
E.6	Dilution	The issue of the New Shares will result in the holdings of holders of Shares as at the date of this Document (presuming such holders do not participate in the Subscription) being diluted by 32.49%.
E.7	Estimated expenses charged to the investor	Not applicable; no expenses will be charged to the investors by the Company.

RISK FACTORS

Investment in the Company and the Shares carries a significant degree of risk, including risks in relation to the Company's business strategy, potential conflicts of interest, risks relating to taxation and risks relating to the Shares.

Investors and prospective investors should note that the risks relating to the Company, its industry and the Shares summarised in Part D of this Document headed "Summary" are the risks that the Directors as at the date of this Prospectus believe to be the most essential to an assessment by a prospective investor of whether to consider an investment in the Shares. However, as the risks which the Company faces relate to events and depend on circumstances that may or may not occur in the future, prospective investors should consider not only the information on the key risks summarised in Part D of this Document headed "Summary" but also, among other things, the risks and uncertainties described below.

The risks referred to below are those risks the Company and the Directors consider to be the material risks relating to the Company as from Admission. However, there may be additional risks that the Company and the Directors do not currently consider to be material or of which the Company and the Directors are not currently aware that may adversely affect the Company's business, financial condition, results of operations or prospects. Investors should review this Document carefully and in its entirety and consult with their professional advisers before acquiring any Shares. If any of the risks referred to in this Document were to occur, the results of operations, financial condition and prospects of the Company could be materially adversely affected. If that were to be the case, the trading price of the Shares and/or the level of dividends or distributions (if any) received from the Shares could decline significantly. Further, investors could lose all or part of their investment.

RISKS RELATING TO THE COMPANY'S BUSINESS

No commercial operations

The Company is an exploration company and therefore does not generate positive cash flow. The Company has earned no income or profit to date and there is no assurance that it will do so in the future, or that it will be successful in achieving a return on Shareholders' investment. The Company's ultimate success will depend on its ability to reach production stage and generate positive cash flow in the future. The Company will continue to report negative cash flow from operations until it receives the mining licence for the Mid Reach project, the Company's most advanced project and is able to start a commercial operation. Receipt of a mining licence would also enable the Company to sell stones that it has to date recovered through bulk sampling and other exploratory work and are currently not saleable under the terms of the exploration permit. The Company may apply for a mining licence only once it has demonstrated the presence of a sizeable gemstone deposit and it has been granted a discovery certificate. The Company is currently in possession of an exploration and two prospecting permits and has not applied for a mining licence. A mining licence will not be granted to the holder of a discovery certificate where the holder does not have sufficient capital or technical capability to mine the ore in the area contemplated in an application.

The Company is reliant on the Kishon River Mid Reach deposit

The Company is to a greater extent entirely dependent upon the development of the Kishon River Mid Reach deposit, which is the Company's most likely source of future revenue, and any adverse development affecting the Mid Reach deposit would have a material adverse effect on the Company, its business, prospects, results of operations and financial condition.

No mineral reserves or resources are currently defined

As is stated in the Competent Person's Report, for any of Shefa Yamim's permit area or any portion thereof to be considered a Mineral Resource there must be an occurrence of gemstones of economic interest in such form, quality and quantity that there are reasonable and realistic prospects of gemstone extraction. Here, location, quantity, grade, continuity and other geological characteristics of this mineral resource should be known, estimated from specific geological evidence and knowledge.

As stated in the CPR, Creo Design PTY Ltd is of the opinion that Shefa Yamim has made good progress in its sampling programme; however, the quantity of drilling and in particular the sampling is insufficient to delineate a Mineral Resource to the level of confidence required by SAMREC to classify any of the Shefa Yamim exploration targets as Mineral Resources.

As is outlined in the Competent Person's Report, the Company is currently in an advanced stage towards a definition of its first Mineral Resource in the Kishon River Mid Reach deposit and estimates an exploration target of approximately 1.1Mt of gemstone bearing gravel. This target area is being developed in parallel with encouraging exploration advances achieved at the kimberlitic sources (primary sources for gem minerals) on Mt. Carmel and along the Lower Galilee valley's margins.

Investors should note that gemstone deposits and alluvial deposits, such as the Mid Reach deposit, demonstrate an inherent variability in the distribution of economic extractable gemstones. Sampling this type of deposit requires large volume samples. Standard drilling techniques and smaller pit samples are not able to provide sufficient sample volumes and, therefore, the required data to enable estimation of tonnages and grades. Conventional drilling as currently employed by the Company can only provide information to determine the volume of the different mineralisation areas, and its relationship to geological features. Therefore, for a deposit to be considered a Mineral Resource, it is highly dependent on the availability of the results of appropriate size bulk samples.

Investors should be aware that Creo Design PTY Ltd's cautionary approach in the declaration of Mineral Resources and mineral reserves is a consequence of the inability to predict even over short distances the extent and grade of the deposit due to the complex sedimentological controls of the mineralisation and the correct interpretations thereof. Fluvial deposits, by nature, are notorious for their absence of lateral continuity. Creo Design PTY Ltd considers there to be a fair potential for the delineation of Mineral Resources and Mineral Reserves following ongoing exploration and development.

Dependence on executives and personnel

The Company's future success may depend upon its ability to attract and retain highly skilled personnel, both in Israel and abroad. Competition for such personnel in the mining and the gemstone exploration industry is intense and Israel does not have a significant pool of persons experienced in the gemstone mining and exploration industry. The Company may not be successful in attracting and retaining qualified personnel locally or in obtaining the necessary work permits to hire qualified expatriates. Its inability to do so in the future may harm the Company's business and results of operations.

The Company currently employs geological consultants from South Africa, engaged through Majimba Geo Consulting since May 2010, to design, develop and provide quality control of exploration services and evaluation campaigns for the primary bodies and secondary alluvial deposits within the Company's project areas. These consultants instruct and accompany all of the exploration stages on a routine basis. Together with the geological consultants, over the last two years the Company has been training local geologists. As the Company transitions from an exploration to a mining development company, new staff will need to be trained and hired.

Additionally, the Company depends on its senior management for the operation of its day to day activities. The personal connections and relationships of its senior management are important to the conduct of its business. If the Company were to lose a member of its senior management, such a loss could have an adverse effect on the Company's business.

The Company will rely on the services of third parties

The Company will rely on external contractors and suppliers to carry out certain services such as engineering, project design and planning or construction in order to conduct its operations and carry out its development plan.

The Company will seek to enter into additional agreements with third party service providers in connection with its future development plans. However there can be no assurance that the Company will be able to secure in a timely manner, on commercially acceptable terms or at all, the provision of all services that the Company will need to execute its development plans, or that such arrangements will be sufficient for its future needs or will not be interrupted. In addition, certain of the services the Company requires or may in future require, may not be available on commercially reasonable terms or may only be available from a limited number of providers and it may encounter difficulties in securing the services of specialised contractors due to high demand for those services.

As a result, the Company is dependent on external contractors performing satisfactorily and fulfilling their obligations. While the Company is not aware of any specific matter, the Company's business and development plans may be adversely affected by any failure or delay by third parties in supplying

these services, by any change to the terms on which these services are made available or by the failure of such third party providers to provide services that meet its quality or volume requirements.

If the Company is obliged to change a provider of such services, it may experience additional costs, interruptions to production or other adverse effects on its business. There is a risk that the Company may not be able to find adequate replacement services on commercially acceptable terms, on a timely basis or at all.

Should the Company be unable to acquire or retain providers of key services on favourable terms, or should there be interruptions to, or inadequacies with, any services provided, this could have a material adverse effect on its business, financial conditions and results of operations.

Market perception

Market perception of small mining and exploration companies may change, which could impact on the value of investors' holdings and impact on the ability of the Company to raise further funds by the issue of further shares in the Company.

Financing

The ability of the Company to continue its exploration activities depends to a greater extent on its ability to raise capital and/or debt. Considering the fact that gemstone exploration is unique to the Company in Israel, and that it doesn't enjoy wide recognition and understanding (as opposed, for example, to the existing awareness and understanding concerning companies in the gas sector in Israel), there is a risk that the Company only has a limited capacity to raise capital and/or debt from private investors and/or from the public.

The successful extraction of gemstones may require significant capital investment. In addition, delays in drilling or other technical difficulties may result in projected target dates for resulting production being delayed and/or further capital expenditure being required. In common with all mining and drilling operations, there is uncertainty, and therefore risk, associated with operating parameters and costs resulting from the scaling up of extraction methods tested in laboratory conditions.

The Company is unlikely to be able to raise funds except by sale of its assets or by seeking further equity financing, which may not be available on favourable terms or at all. The Company's ability to raise further equity or debt in the future, and the terms of such transactions are likely to be impacted by a number of factors including the results of its exploration programmes, the future development of such properties, the state of the mining and political environment in Israel, the gemstone market and general stock market conditions. In addition, upon identification of suitable projects in the future, the consideration payable may need to be satisfied or part satisfied by the issue of New Shares at a price which may be less than the Subscription Price.

RISKS RELATING TO THE COMPANY'S INDUSTRY

Risk related to marketing the Company's products

The Company intends to maximise the profitability from the sale of its gemstones and may create a fully integrated operation, which includes cutting and polishing. The Company also intends to sell stones directly to consumers through an online platform. The saleability of gemstones is subject to a number of factors including, the colour, clarity and carat of the stones. Not all gemstones are of sufficient quality to be used in jewellery as they are either too small, have poor qualities of colour and clarity or a combination of these factors. However, these stones still hold the mineral properties for industrial applications. Those stones used in industrial applications command a significant discounted price compared with gem quality stones.

If any or all of the above risks materialise, the Company's ability to sell its product may be adversely affected with a consequential impact on revenue generation which may be lower than anticipated and which may impact the future profitability and scope of the Company's operations.

Risks relating to cutting and polishing

One of the key components in the Company's strategic development plan is the establishment of permanent cutting and polishing facilities. However, as with all development projects, there is a risk that the establishment of these facilities may take longer than expected or cost more than budgeted. If the Company determines that the costs associated with developing a cutting and polishing facility is too high and is not economical, the Company may decide to sell rough and unpolished gemstones. Furthermore, the success of the Company's cutting and polishing activities will depend on the

availability of skilled and experienced cutters and polishers and on the Company's ability to recruit and retain them. However, Israel has a highly developed diamond cutting industry and is home to the Israel Diamond Exchange, one of the largest exchanges of the world, employing skilled labour. Once established, the cutting and polishing activities and the sale, exportation or importation of the cut and polished stones may be subject to control or require appropriate licences, concessions, permits or regulatory consents which may or may not be granted, and, if granted, may be subject to limitations of which the Company is currently unaware.

Luxury goods market is affected by adverse economic conditions

The coloured gemstone industry is subject to changes in customer preferences, perceptions and spending habits. The Company's performance will depend on factors which may affect the worldwide desirability of coloured gemstones. Such factors include adverse media coverage, consumer incomes and consumer preferences. Downturns in general economic conditions and uncertainties regarding future economic prospects have historically affected sales of luxury goods such as jewellery. Accordingly, such downturns or uncertainties in the future or a decline in consumer confidence could have a materially adverse effect on the business, financial condition or results of operations of the Company.

Volatility of commodity prices and price fluctuations in the gemstone market

There is no assurance that, even if commercial quantities and qualities of gemstones are discovered by the Company, a market will exist for the profitable sale of such gemstones. The value of diamonds as well as sapphires and rubies, varies widely according to size, colour and freedom from flaws. Other gemstones capable of being found pursuant to the Company's permits, such as Camel Sapphire and natural moissanite are very rare and so far found nowhere else in the world and therefore no real market exists for these minerals. The market price of gemstones is affected by numerous factors outside of the Company's control, including international economic and political conditions, levels of international supply and demand for gemstones, changes in international investment patterns and global or regional consumption patterns, production costs, costs of substitutes, inventory levels and carrying costs, expectations or rates of inflation, currency availability and exchange rates, interest rates, speculative activities in connection with gemstones and increased production due to improved mining and production methods. If the price of gemstones should drop significantly, the Company's economic and operational prospects could be significantly reduced. In respect of the Carmel Sapphire and natural moissanite, the Company will have to determine the value of these minerals and the level of marketing to create demand for these rare minerals.

Competition

The Company is the first and currently only gemstone exploration company in Israel, and therefore currently has no competition in the country. However, it is possible that other international mining firms may become interested in developing gemstone projects and provide the skills, experience and investments required in order to develop a mine. Future competitors may have substantially greater financial, technical and marketing resources, longer operating histories, larger customer bases, greater name recognition and more established relationships than the Company and so may be better able to compete in the Company's target market.

Underdeveloped mining industry

Israel does not have a significant presence in the worldwide gemstone exploration industry and there are no operating gemstone mines. As such the Company will be subject to risks associated with an emerging resource sector, including the lack of infrastructure and support services, as well as regulatory, economic and political risks. However it should be mentioned that Israel is a leading producer of potash and has a number of operating quarries. The Company's revenues may be affected by uncertainties generally associated with industries in their early stages of development and investors in such emerging industries should be aware that they are subject to greater risks than more developed industries. Investors should also be aware that emerging industries are subject to rapid change and that the information set out in this Document may become outdated relatively quickly. Accordingly, investors should exercise particular care in evaluating the risks involved and must decide for themselves whether, in light of those risks, their investment is appropriate.

RISKS RELATING TO MINERAL EXPLORATION

Exploration risks – general

The exploration and development of gemstone deposits involve a high degree of financial risk over a significant period of time, which even a combination of careful evaluation, experience and knowledge of management may not eliminate. While discovery of gemstone deposits may result in substantial rewards, few properties which are explored are ultimately developed into economically viable producing mines. Major expenses may be required to establish reserves by drilling and to construct mining and processing facilities at a particular site. It is impossible to ensure that the proposed exploration programmes of the Company will result in profitable commercial mining operations.

The Company's operations are subject to all of the hazards and risks normally incidental to exploration, development and mining of gemstones, any of which could result in damage to life or property, environmental damage and possible legal liability for any or all such damage. The availability of insurance for such hazards and risks is extremely limited or uneconomical at this time. The Company's activities may be subject to prolonged disruptions due to weather conditions, industrial accidents and labour disputes. Hazards, such as unusual or unexpected rock formations, rock pressures or mud and water influx, may be encountered.

Whether a gemstone deposit will be commercially viable depends on a number of factors, some of which are particular attributes of the deposit (such as its size and quality), proximity to infrastructure, financing costs and governmental regulations (including regulations relating to prices, taxes, royalties, infrastructure, land use, importing and exporting gemstones and environmental protection). The effect of these factors cannot be accurately predicted, but the combination of these factors may result in the Company not receiving an adequate return on invested capital. The profitability of the Company's operations will be, in part, directly related to the cost and success of its exploration programmes which may be affected by a number of factors. Substantial expenditures are required to establish reserves which are sufficient to commercially mine some of the Company's properties and to construct complete and install mining and processing facilities in those properties that are actually mined and developed. Further information on the specific risks associated with the Company's exploration operations are set out in the Competent Person's Report in Part 15 of this Document.

General operational risks

The Company's planned exploration, development and production activities in Israel may be delayed or adversely affected by numerous general operating risks outside of its control. Such factors include adverse climatic conditions, technical failures, labour disputes, environmental hazards, delays to government actions, delays in construction, delays in the zoning process, availability of material or parts and shipping, import or customs delays. Problems may also arise due to the quality or failure of equipment or interruption to services (such as power, water, fuel, transport or processing capacity). These risks and hazards could also result in damage to or destruction of production facilities, personal injury, environmental damage, business interruption, monetary losses and possibly legal liability.

While the Company currently intends to maintain insurance within ranges of coverage consistent with industry practice, no assurance can be given that the Company will be able to obtain such insurance coverage at reasonable rates (or at all), or that any coverage it obtains will be adequate, affordable and/or available.

Uninsured risks

The Company, as a participant in mining and exploration activities, may become subject to liability for hazards that cannot be insured against or against which it may elect not to be so insured because of high premium costs. In particular, insurance against risks such as environmental pollution or other hazards as a result of exploration and production is not generally available to the Company or to other companies in the mining industry on acceptable terms. Losses from uninsured risks may cause the Company to incur costs that could have a materially adverse effect upon the Company's financial performance and results of operations.

Permits and mining licences

The operations of the Company require licences, permits and in some cases renewals of existing licences and permits from various governmental authorities and private land owners. The Directors believe that the Company currently holds or has applied for all necessary licences and permits to carry on the activities which it is currently conducting under applicable laws and regulations in respect of its operations and authorities, and also believes that the Company is complying in all material respects

with the terms of such licences and permits. However, the Company's ability to obtain, sustain or renew such licences and permits on acceptable terms is subject to changes in regulations and policies and to the discretion of the applicable governmental authorities.

Zoning and planning process

In the event of a discovery, the Company may be required to initiate a zoning and planning process, which would include several regulatory approvals. As there is limited experience in the State of Israel with exploration companies, the Company is unable to assess the length or costs of such processes, which can take a long time, cost significant amounts and divert management's attention. The prospects of such processes are uncertain and risky.

Natural disaster risk

Mining activities are subject to numerous risks outside of the Company's control, including the risk of a natural disaster taking place in the mining/ exploration area. The Company's operations may be severely impacted by natural disasters, including flash floods and forest fires which cause substantial damage to the exploration and drilling area or equipment or make working conditions hazardous for personnel. In December 2010 the Mount Carmel forest fire that started on Mount Carmel in northern Israel, just south of Haifa, and near to the Company's exploration area, spread quickly into the forest surrounding the region, affecting almost 50 km²/ 10,000,000 m of the surrounding area and killing more than 40 people. In that instance, over 17,000 people were evacuated and the fire caused considerable environmental damage, as well as significant damage to property. The recurrence of such a disaster could cause the Company substantial losses due to injury or loss of life or property, damage to equipment, pollution, clean-up costs, as well as a potential suspension of operations by the relevant environmental or governmental authorities. Such damage may result in substantial insurance claims needing to be made, where insurance is available and undertaken.

LEGAL, POLITICAL, ECONOMICAL AND SOCIAL RISK FACTORS RELATING TO ISRAEL

Potential political, economic and military instability in the State of Israel, where the Company's management and facilities are located, may adversely affect the Company's results of operations

The Company is incorporated under Israeli law and its offices and operations are located in the State of Israel. In addition, its employees, officers and all but 3 of its Directors, Michael Rosenberg, James Campbell and Nathalie Schwarz are residents of Israel. Accordingly, political, economic and military conditions in Israel directly affect the Company's business. Since the State of Israel was established in 1948, a number of armed conflicts have occurred between Israel and its neighbouring countries. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners, or a significant downturn in the economic or financial condition of Israel, could affect adversely the Company's operations. Since October 2000, there have been increasing occurrences of terrorist violence. Ongoing and revived hostilities or other Israeli political or economic factors could harm the Company's operations, product development and results of operations. Although Israel has entered into various agreements with Egypt, Jordan and the Palestinian Authority, there has been an increase in unrest and terrorist activity, which began in October 2000 and has continued with varying levels of severity. The establishment in 2006 of a government in the Palestinian Authority by representatives of the Hamas militant group has created additional unrest and uncertainty in the region. In 2006, a conflict between Israel and the Hezbollah in Lebanon resulted in thousands of rockets being fired from Lebanon up to 50 miles into Israel. Starting in December 2008, for approximately three weeks, Israel engaged in an armed conflict with Hamas in the Gaza Strip, which involved missile strikes against civilian targets in various parts of Israel and negatively affected business conditions in Israel. In November 2012, for approximately one week, Israel experienced a similar armed conflict, resulting in hundreds of rockets being fired from the Gaza Strip and disrupting most day-to-day civilian activity in southern Israel. Beginning in July 2014, for approximately seven weeks, Israel experienced additional armed conflict between Israel and Hamas, which included rocket strikes against civilian targets in various parts of Israel. If renewed, these hostilities may negatively affect business conditions in Israel. The Company's insurance policies do not cover the damage incurred in connection with these conflicts or for any resulting disruption in the Company's operations.

The Israeli government, as a matter of law, provides coverage for the reinstatement value of direct damages that are caused by terrorist attacks or acts of war; however, the government may cease providing such coverage or the coverage might not be enough to cover potential damages. In the event that hostilities disrupt the ongoing operation of the Company's facilities or the airports and

seaports on which the Company depends to import and export its supplies and products, the Company's operations may be materially adversely affected. In addition, since the end of 2010, numerous acts of protest and civil unrest have taken place in several countries in the Middle East and North Africa, many of which involved significant violence. The civil unrest in Egypt, which borders Israel, resulted in the resignation of its president Hosni Mubarak, and to significant changes to the country's government. In Syria, also bordering Israel, a civil war is continuing to take place. The ultimate effect of these developments on the political and security situation in the Middle East and on Israel's position within the region is not clear at this time. Such instability may lead to deterioration in the political and trade relationships that exist between the State of Israel and certain other countries. Popular uprisings in various countries in the Middle East and North Africa are affecting the political stability of those countries. Such instability may lead to deterioration in the political and trade relationships that exist between the State of Israel and these countries. Several countries, principally in the Middle East, still restrict doing business with Israel and Israeli companies, and additional countries may impose restrictions on doing business with Israel and Israeli companies if hostilities in Israel or political instability in the region continues or increases. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners, or significant downturns in the economic or financial condition of Israel, could adversely affect our operations and product development and adversely affect our share price. Similarly, Israeli companies are limited in conducting business with entities from several countries. For instance, in 2008, the Israeli legislature passed a law forbidding any investments in entities that transact business with Iran.

The Company operations may be disrupted by the obligations of personnel to perform military service

As of the date of this Document, the Company had 7 employees, all of whom were based in Israel. Some of the Company's employees may be called upon to perform up to 36 days (and in some cases more) of annual military reserve duty until they reach the age of 40 (and in some cases, up to 45 or older) and, in emergency circumstances, could be called to immediate and unlimited active duty. In the event of severe unrest or other conflict, individuals could be required to serve in the military for extended periods of time. Since September 2000, in response to increased tension and hostilities, there have been occasional call-ups of military reservists, including in connection with the 2006 conflict in Lebanon, and the December 2008 and November 2012 conflicts with Hamas, and it is possible that there will be additional call-ups in the future. The Company's operations could be disrupted by the absence of a significant number of employees related to military service or the absence for extended periods of one or more key employees for military service. Such disruption could materially adversely affect the Company's business and results of operations. Additionally, the absence of a significant number of employees of the Company's Israeli suppliers and contractors related to military service or the absence for extended periods of one or more of their key employees for military service may disrupt their operations.

Payments to Shareholders may be subject to deduction or withholding on account of Israeli tax

Shareholders may receive dividends subject to deduction or withholding on account of Israeli withholding tax. The amount of Israeli tax withheld from dividends paid to a holder of Shares may be reduced under the provisions of a tax treaty between Israel and the holder's jurisdiction of residence or incorporation. Any changes, renegotiation or withdrawal from the relevant tax treaty could result in a higher amount of tax being withheld from dividends paid to the holder. Shareholders who do not benefit from a tax treaty may, under the relevant tax laws, be subject to greater levels of withholding tax that are not reclaimable.

Currency risk and exchange rate fluctuation

The Company's operations are subject to exchange rate fluctuations and exchange control and may become subject to other similar restrictions. The Company's operating costs will be incurred principally in NIS and its accounts will be presented in NIS. This currency may suffer significant volatility relative to the US dollar. Any significant and sustained appreciation of the currencies of those countries in which the Company bears operating costs against the US dollar could serve to reduce materially the Company's future profitability. Fluctuations in exchange rates between currencies in which the Company operates may cause fluctuations in its financial results, which are not necessarily tied to the Company's underlying operations.

Environmental issues and legislation

The Company's operations are subject to environmental regulation (including regular environmental impact assessments and the requirement to obtain and maintain certain permits) in all the locations in which the Company operates. Such regulation covers a wide variety of matters, including, without limitation, prevention of waste, pollution and protection of the environment, labour regulations and health and safety. The Company may also be subject, under such regulations, to clean-up costs and liability for toxic or hazardous substances which may exist on or under any of its properties or which may be produced as a result of its operations. Environmental legislation and permitting requirements are likely to evolve in a manner which will require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their directors and employees. No assurance can be given that the need to comply with current or future environmental laws, regulations or commitments will not have a materially adverse effect on the activities of the Company or that the liabilities resulting from any environmental damage caused by the activities of the Company will not be material.

Zoning Risk

Opening a mine might require amendment to the national/ district/ local zoning plans applying to the mining area. Such amendments, to the extent required, may take time as the process is open to public involvement and will be subject to the local zoning committee's discretion. A prolonged process may have an adverse effect on the Company's business, financial condition, results of operations or prospects. Specifically, the Company may lose certain mining rights as a result of a prolonged process. Furthermore, all zoning processes require the cooperation of the Israeli Land Authority, in its capacity as landlord of most of the Company's exploration areas.

Nature Reserves and National Parks

Certain areas of Mount Carmel which are within the boundaries of the Company's prospecting permit and exploration permit have been declared nature reserves or national parks by the State of Israel. According to the National Parks, Nature Reserves and Memorial Sites Act of 1998 and the conditions of the Company's prospecting and exploration permits, any activities within the area of a natural reserve or national park require the prior approval of the Israel Nature and National Park Protection Authority to conduct operations, such as surveying and exploration.

Additionally, according to the relevant national land planning program up to one-third of the area of these reserves and parks may be used for non-nature reserve and non-national park use subject to obtaining the required approvals pursuant to the said national land planning program and the National Parks, Nature Reserves and Memorial Sites Act of 1998. Any mining activities within the area which fall within these nature reserves or national parks shall require additional approvals of these governmental authorities. The Company intends to file for such approvals when required by its operations. No assurance can be given, however that the Company will receive these relevant approvals relating to its activities within the boundaries of a nature reserve or national park within the State of Israel.

All of the drillings conducted by the Company up to the reported date were conducted in areas other than nature reserves and/or national parks. When soil samples were taken by the Company from areas in nature reserves or national parks, this was locally coordinated with the Nature Reserves Authority.

The City Code on Takeovers and Mergers does not and will not apply

The Company is incorporated in Israel and its head office and place of central management is in Israel. Accordingly, transactions in Shares are not subject to the provisions of the Takeover Code. However, the Company's Articles of Association contain certain provisions in relation to major acquisitions of Shares. In addition, the Company is subject to Israeli law, which regulates acquisitions of shares through tender offers and mergers and regulates other matters that may be relevant to these types of transactions. Further information is contained in Part 5 of this Document.

It may be difficult to enforce an English judgment against the Company or its officers and Directors, to assert English securities laws claims in Israel or serve process on substantially all of the Company's officers and Directors

The Company is organised under the laws of the State of Israel and the majority of its senior management team are based in Israel. Therefore, it may be difficult for an investor, or any other person or entity, to enforce a judgment obtained in the United Kingdom against the Company or any of these persons, or to effect service of process upon these persons in the United Kingdom. Furthermore, it may be difficult to assert English securities law claims in original actions instituted in Israel. The Israeli courts may refuse to hear a claim based on a violation of English securities laws on the grounds that Israel is not the most appropriate forum in which to bring such a claim. Even if an Israeli court agrees to hear a claim, it may determine that Israeli law and not English law is applicable to the claim. If English law is found to be applicable, the content of applicable English law must be proved as a fact which can be a time-consuming and costly process. Certain matters of procedure will also be governed by Israeli law. Furthermore, there is little binding case law in Israel addressing the matters described above.

The rights and responsibilities of the Company's shareholders are governed by Israeli law and differ in some respects from the rights and responsibilities of shareholders under English law

The Company is incorporated under Israeli law. The rights and responsibilities of holders of Shares are governed by the Articles and by Israeli law. These rights and responsibilities differ in some respects from the rights and responsibilities of shareholders in typical English incorporated companies.

In particular, a shareholder of an Israeli company has a duty to act in good faith toward the company and other shareholders and to refrain from abusing his power in the company, including, among other things, in voting at a general meeting of shareholders on certain matters. Israeli law provides that these duties are applicable in shareholder votes on, among other things, amendments to a company's articles of association, increases in a company's authorised share capital, mergers and interested party transactions requiring shareholder approval. A shareholder also has a general duty to refrain from discriminating against other shareholders. In addition, a controlling shareholder, a shareholder who knows that it possesses the power to determine the outcome of a shareholder vote, and a shareholder that possesses the power to appoint or prevent the appointment of a director or executive officer of a company, has a great duty of fairness toward the company with regard to such vote or appointment. There is limited case law available to assist in understanding the nature of this duty or the implications of these provisions. These provisions may be interpreted to impose additional obligations and liabilities on shareholders that are not typically imposed on shareholders of UK corporations.

Provisions of Israeli law and the Company's Articles of Association could make it more difficult for a third party to acquire the Company or increase the cost of acquiring the Company, even if doing so would benefit the Shareholders

Israeli law regulates mergers, requires tender offers for acquisitions of shares above specified thresholds, requires special approvals for transactions involving directors, officers or significant shareholders and regulates other matters that may be relevant to such types of transactions. For example, a tender offer for all of a company's issued and outstanding shares can only be completed if the acquirer receives positive responses from the holders of at least 95% of the issued share capital. Completion of the tender offer also requires approval of a majority of the offerees that do not have a personal interest in the tender offer, unless at least 98% of the company's outstanding shares are tendered. Furthermore, the shareholders, including those who indicated their acceptance of the tender offer (unless the acquirer stipulated in its tender offer that a shareholder that accepts the offer may not seek appraisal rights), may, at any time within six months following the completion of the tender offer, petition an Israeli court to alter the consideration for the acquisition.

Further, Israeli tax considerations may make potential transactions undesirable to the Company or to some Shareholders whose country of residence does not have a tax treaty with Israel granting tax relief to such Shareholders from Israeli tax. With respect to mergers, Israeli tax law allows for tax deferral in certain circumstances but makes the deferral contingent on the fulfilment of a number of conditions, including, in some cases, a holding period of two years from the date of the transaction during which sales and dispositions of shares of the participating companies are subject to certain restrictions. Moreover, with respect to certain share swap transactions, the tax deferral is limited in

time, and when such time expires, the tax becomes payable even if no disposition of the shares has occurred.

RISKS RELATING TO THE SHARES

The Standard Listing of the Shares will afford investors a lower level of regulatory protection than a Premium Listing.

Application will be made for the Company's entire issued share capital to be admitted to a Standard Listing on the Official List. A Standard Listing will afford investors in the Company a lower level of regulatory protection than that afforded to investors in a company with a Premium Listing, which is subject to additional obligations under the Listing Rules.

Further details regarding the differences in the protections afforded by a Premium Listing as against a Standard Listing are set out in the section entitled "Consequences of a Standard Listing" on page 23 of this Document.

A market for the Shares may not develop following Admission, which would adversely affect the liquidity and price of the Shares

The price of the Shares after Admission may also vary due to a number of factors, including but not limited to, general economic conditions and forecasts, the Company's general business condition and the release of its financial reports. Although the Company's current intention is that its securities should continue to trade on the London Stock Exchange, it cannot assure investors that they will always do so. In addition, an active trading market for the Shares may not develop or, if developed, may not be maintained. Investors may be unable to sell their Shares unless a market can be established and maintained, and if the Company subsequently obtains a listing on an exchange in addition to, or in lieu of, the London Stock Exchange, the level of liquidity of the Shares may decline.

Investors may not be able to realise returns on their investment in Shares within a period that they would consider to be reasonable

Investments in Shares may be relatively illiquid. There may be a limited number of Shareholders and this, together with the number of Shares to be issued pursuant to the Subscription, may contribute both to infrequent trading in the Shares on the London Stock Exchange and/or to volatile Share price movements. Investors should not expect that they will necessarily be able to realise their investment in Shares within a period that they would regard as reasonable. Accordingly, the Shares may not be suitable for short-term investment. Admission should not be taken as implying that there will be an active trading market for the Shares. Even if an active trading market develops, the market price for the Shares may fall below the Subscription Price.

Dividend payments on the Shares are not guaranteed

The Company has never declared or paid any cash dividends on its share capital. The Company currently anticipates that it will retain future earnings for the development, operation and expansion of its business and does not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to Shareholders will therefore be limited to the appreciation of their shares. In addition, Israeli law limits the Company's ability to declare and pay dividends, and may subject dividends to Israeli withholding taxes. Furthermore, payment of dividends (out of tax-exempt income) may retroactively subject us to certain Israeli corporate income taxes, to which we would not otherwise be subject.

Parent Company

Following Admission, the Parent Company will hold 6,800,442 Shares representing approximately 48.91% per cent. of the Company's issued share capital.

Notwithstanding the Relationship Agreement described in Part 4 of this Document, there is no guarantee that the Parent Company's interests will coincide with the interests of other Shareholders. The Parent Company will be in a position to exert significant influence over the Company's affairs, and will be able to significantly influence the outcome of any Shareholders' resolution, irrespective of how the Shareholders may vote.

The Parent Company may cause the Company to take actions that are not in the interests of the Company or its other Shareholders. In the event that the interests of the Parent Company conflict with those of the other Shareholders, or if the Parent Company chooses to cause the Company to pursue

objectives that would conflict with the interests of the other Shareholders, such other Shareholders could be left in a disadvantageous position as a result of the actions caused by the Parent Company.

The Parent Company is traded on the Tel Aviv stock exchange and is a holding company with no substantial income of its own. The Parent Company's continued going concern is dependent on its ability to raise capital. As outlined in Part 3 – '*Operating and Financial Review of the Company*', the Parent Company has a debt of NIS 259,364,000 , as of the 31 October 2017, owed to the Company and the inability of the Parent Company to raise the required funds and failing to continue as a going concern has significant implications for the Company. The Company has no means to enforce the repayment of the Parent Company Debt Liability and there is no guarantee that the Company will ever be paid the total amount outstanding.

RISKS RELATING TO TAXATION

Changes in tax law and practice may reduce any net returns for investors

The tax treatment of shareholders of the Company will be subject to changes in tax laws or practices in Israel and/or England and Wales. Any change may reduce any net return derived by investors from a shareholding in the Company.

There can be no assurance that the Company will be able to make returns for Shareholders in a tax-efficient manner

It is intended that the Company will be structured to maximise returns for Shareholders in as fiscally efficient a manner as is practicable. The Company has made certain assumptions regarding taxation. However, if these assumptions are not correct, taxes may be imposed with respect to the Company's assets, or the members of the Company may be subject to tax on income, profits, gains or distributions (either on a liquidation and dissolution or otherwise) in a particular jurisdiction or jurisdictions in excess of taxes that were anticipated. This could alter the post-tax returns for Shareholders (or Shareholders in certain jurisdictions). The level of return for Shareholders may also be adversely affected. Any change in laws or tax authority practices could also adversely affect any post-tax returns of capital to Shareholders or payments of dividends (if any, which the Company does not envisage the payment of, at least in the short to medium term). In addition, the Company may incur costs in taking steps to mitigate any such adverse effect on the post-tax returns for Shareholders.

PRESENTATION OF IMPORTANT INFORMATION

General

In deciding whether or not to invest in the Subscription Shares, prospective investors should rely only on the information contained in this Document. No person has been authorised to give any information or make any representations in connection with Admission other than as contained in this Document and, if any other information is given or made, such information or representations must not be relied on as having been authorised by the Company or the Directors without prejudice to the Company's obligations under FSMA, the Prospectus Rules, Listing Rules and Disclosure and Transparency Rules, neither the delivery of this Document nor any subscription made under this Document shall, under any circumstances, create any implication that there has been no change in the affairs of the Company since the date of this Document or that the information contained herein is correct as at any time after its date.

Prospective investors must not treat the contents of this Document or any subsequent communications from the Company or the Directors or any of their respective affiliates, officers, directors, employees or agents as advice relating to legal, taxation, accounting, regulatory, investment or any other matters.

This Document does not constitute, and may not be used for the purposes of, an offer to sell or an invitation or the solicitation of an offer or invitation to subscribe for or buy, any Shares by any person in any jurisdiction: (i) in which such offer or invitation is not authorised; (ii) in which the person making such offer or invitation is not qualified to do so; or (iii) in which, or to any person to whom, it is unlawful to make such offer, solicitation or invitation.

The distribution of this Document and the offering of the Shares in certain jurisdictions may be restricted. Accordingly, persons outside the United Kingdom who obtain possession of this Document are required by the Company or the Directors to inform themselves about, and to observe any restrictions as to the offer or sale of Shares and the distribution of, this Document under the laws and regulations of any territory in connection with any applications for Shares, including obtaining any requisite governmental or other consent and observing any other formality prescribed in such territory. No action has been taken or will be taken in any jurisdiction by the Company, or the Directors, that would permit a public offering of the Shares in any jurisdiction where action for that purpose is required, nor has any such action been taken with respect to the possession or distribution of this Document other than in any jurisdiction where action for that purpose is required. Neither the Company nor the Directors accept any responsibility for any violation of any of these restrictions by any other person.

The Shares have not been and will not be registered under the Securities Act, or under any relevant securities laws of any state or other jurisdiction in the United States, or under the applicable securities laws of Australia, Canada or Japan. Subject to certain exceptions, the Shares may not be offered, sold, resold, reoffered, pledged, transferred, distributed or delivered, directly or indirectly, within, into or in the United States, Australia, Canada or Japan or to any national, resident or citizen of Australia, Canada or Japan.

Investors may be required to bear the financial risk of an investment in the Shares for an indefinite period. The Shares are not transferable except in compliance with the restrictions described in Part 13 – *'Notices to Investors'*.

Selling and transfer restrictions

Prospective investors should consider (to the extent relevant to them) the notices to residents of various countries set out in Part 13 – *'Notices to Investors'*.

Investment considerations

In making an investment decision, prospective investors must rely on their own examination, analysis and enquiry of the Company, this Document and the terms of the Subscription, including the merits and risks involved. The contents of this Document are not to be construed as advice relating to legal, financial, taxation, investment decisions or any other matter. Prospective investors should inform themselves as to:

- the legal requirements within their own countries for the purchase, holding, transfer or other disposal of the Shares;

- any foreign exchange restrictions applicable to the purchase, holding, transfer or other disposal of the Shares which they might encounter; and
- the income and other tax consequences which may apply in their own countries as a result of the purchase, holding, transfer or other disposal of the Shares or distributions by the Company, either on a liquidation and distribution or otherwise. Prospective investors must rely upon their own representatives, including their own legal advisers and accountants, as to legal, tax, investment or any other related matters concerning the Company and an investment therein.

An investment in the Company should be regarded as a long-term investment. There can be no assurance that the Company's objectives will be achieved.

It should be remembered that the price of the Shares, and any income from such Shares, can go down as well as up.

This Document should be read in its entirety before making any investment in the Shares. All Shareholders are entitled to the benefit of, are bound by, and are deemed to have notice of, the provisions of the Articles of Association, which investors should review.

Forward-looking statements

This Document includes statements that are, or may be deemed to be, "forward-looking statements". In some cases, these forward-looking statements can be identified by the use of forward-looking terminology, including the terms "targets", "believes", "estimates", "anticipates", "expects", "intends", "may", "will", "should" or, in each case, their negative or other variations or comparable terminology. They appear in a number of places throughout the Document and include statements regarding the intentions, beliefs or current expectations of the Company and the Board of Directors concerning, among other things: (i) the Company's objective, acquisition and financing strategies, results of operations, financial condition, capital resources, prospects, capital appreciation of the Shares and dividends; and (ii) future deal flow and implementation of active management strategies. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. Forward-looking statements are not guarantees of future performance. The Company's actual performance, results of operations, financial condition, distributions to shareholders and the development of its financing strategies may differ materially from the forward-looking statements contained in this Document. In addition, even if the Company's actual performance, results of operations, financial condition, distributions to shareholders and the development of its financing strategies are consistent with the forward-looking statements contained in this Document, those results or developments may not be indicative of results or developments in subsequent periods. Important factors that may cause these differences include, but are not limited to:

- the Company's ability to ascertain the merits or risks of the operations of the Company;
- the Company's ability to use the Net Proceeds on a timely basis;
- the availability and cost of equity or debt capital for any future transactions or capital expenditure;
- currency exchange rate fluctuations, as well as the success of the Company's hedging strategies in relation to such fluctuations (if such strategies are in fact used); and
- legislative and/or regulatory changes, including changes in taxation regimes.

Prospective investors and Shareholders should carefully review the "Risk Factors" section of this Document for a discussion of additional factors that could cause the Company's actual results to differ materially, before making an investment decision. For the avoidance of doubt, nothing in this paragraph constitutes a qualification of the working capital statement contained in paragraph 12 of Part 12 – 'Additional Information' of this Document.

Forward-looking statements contained in this Document apply only as at the date of this Document. Subject to any obligations under the Listing Rules, the Disclosure and Transparency Rules and the Prospectus Rules, the Company undertakes no obligation to update or review any forward-looking statement, whether as a result of new information, future developments or otherwise.

Presentation and financial information

The financial information presented in this Document comprises audited financial information for the Company for the years ended 31 December 2014, 31 December 2015 and 31 December 2016, and unaudited interim results for the six month period ended 30 June 2017.

The non-statutory financial information has been prepared in accordance with IFRS.

Non-financial information operating data

The non-financial operating data included in this Document has been extracted without material adjustment from the management records of the Company and is unaudited.

Rounding

Percentages and certain amounts in this Document, including financial, statistical and operating information, have been rounded to the nearest whole number or single decimal place for ease of presentation. As a result, the figures shown as totals may not be the precise sum of the figures that precede them. In addition, certain percentages and amounts contained in this Document reflect calculations based on the underlying information prior to rounding, and, accordingly, may not conform exactly to the percentages or amounts that would be derived if the relevant calculations were based upon the rounded numbers.

Third party information

The Company confirms that all third party information contained in this Document has been accurately reproduced and, so far as the Company is aware and is able to ascertain from information published by that third party, no facts have been omitted that would render the reproduced information inaccurate or misleading. Where third party information has been used in this Document, the source of such information has also been identified

Currency presentation

Unless otherwise indicated, all references to “British pound sterling”, “sterling”, “£” or “pounds” are to the lawful currency of the United Kingdom. All references to “United states dollar”, “dollar(s)” or “US\$” are to the lawful currency of the United States. All references to the “Israeli new shekel” or “NIS” are to the lawful currency of Israel. The Company prepares its financial statements in NIS.

No incorporation of website

The Company’s corporate website as from Admission will be www.shefayamim.com. The contents of any website of the Company or any other person do not form part of this Document.

Definitions

A list of defined terms used in this Document is set out in Part 14—“*Definitions*” in this Document.

EXPECTED TIMETABLE OF PRINCIPAL EVENTS

Publication of this Document	12 December 2017
Admission and commencement of unconditional dealings in Shares	8.00 a.m. on 18 December 2017
Crediting of Subscription Shares to Depositary Interest Accounts	18 December 2017
Share certificates for Subscription Shares dispatched	week commencing 8 January 2018

Each of the times and/or dates set out above and mentioned elsewhere in this Document may be subject to change at the absolute discretion of the Company and VSA. All references to time in this Document are to London time unless otherwise stated.

ADMISSION AND SUBSCRIPTION STATISTICS

Total number of Shares in issue on the date of this Document	9,387,600
Total number of Converted Debt Shares to be issued	4,294,317
Total number of Subscription Shares to be issued in the Subscription	223,139
Total number of Shares in issue following Admission	13,905,056
Subscription Price	110 pence
Market Capitalisation at the Subscription Price	£15.3 million
Estimated Net Proceeds receivable by the Company	approximately £3.39 million

DEALING CODES

The dealing codes for the Shares are as follows:

ISIN	IL0011101057
SEDOL	B2QF5R4
LEI	213800NBHVWXI6X6FX47
TIDM	SEFA

CONSEQUENCES OF A STANDARD LISTING

Application will be made for the Enlarged Issued Share Capital to be admitted to the standard segment of the Official List ("Standard Listing"). A Standard Listing affords Shareholders and investors in the Company a lower level of regulatory protection than that afforded to investors in companies whose securities are admitted to the premium segment of the Official List, which are subject to additional obligations under the Listing Rules.

The Subscription Shares will be admitted to listing on the standard segment of the Official List pursuant to Chapter 14 of the Listing Rules, which sets out the requirements for Standard Listings. The Company intends to comply with the Listing Principles set out Chapter 7 of the Listing Rules at Listing Rule 7.2.1 which apply to all companies with their securities admitted to the Official List. In addition, the Company also intends to comply with the Listing Principles at Listing Rule 7.2.1A, notwithstanding that they only apply to companies which obtain a Premium Listing on the Official List. With regard to Listing Principles at 7.2.1A, the Company is not, however, formally subject to such Listing Principles and will not be required to comply with them by the UK Listing Authority.

Listing Rules which are not applicable to a Standard Listing

Such non-applicable Listing Rules include, in particular:

- Chapter 8 of the Listing Rules regarding the appointment of a listing sponsor to guide the Company in understanding and meeting its responsibilities under the Listing Rules in connection with certain matters. In particular, the Company is not required to appoint a sponsor in relation to the publication of this Document or Admission;
- Chapter 9 of the Listing Rules relating to further issues of shares, issuing shares at a discount in excess of ten per cent. of market value, notifications and contents of financial information and various other continuing obligations;
- Chapter 10 of the Listing Rules relating to significant transactions which requires Shareholder consent for certain acquisitions;
- Chapter 11 of the Listing Rules regarding related party transactions.
- Chapter 12 of the Listing Rules regarding purchases by the Company of its Shares; and
- Chapter 13 of the Listing Rules regarding the form and content of circulars to be sent to Shareholders.

Listing Rules with which the Company must comply under a Standard Listing

There are, however, a number of continuing obligations set out in Chapter 14 of the Listing Rules that will be applicable to the Company. These include requirements as to:

- the forwarding of circulars and other documentation to the UKLA for publication through the document viewing facility and related notification to a regulatory information service;
- the provision of contact details of appropriate persons nominated to act as a first point of contact with the UKLA in relation to compliance with the Listing Rules and the Disclosure and Transparency Rules;
- the form and content of temporary and definitive documents of title;
- the appointment of a registrar;
- the making of regulatory information service notifications in relation to a range of debt and equity capital issues; and
- at least 25 per cent. of the Shares being held by the public in one or more EEA States.

In addition, as a company whose securities are admitted to trading on a regulated market, the Company will be required to comply with the Disclosure and Transparency Rules.

It should be noted that the UK Listing Authority will not have the authority to (and will not) monitor the Company's compliance with any of the Listing Rules which the Company has indicated herein that it intends to comply with on a voluntary basis and/or any provision of the Model Code nor to impose sanctions in respect of any failure by the Company to so comply.

DIRECTORS AND ADVISERS

Directors	<p>Abraham 'Avi' Taub (<i>Chief Executive Officer & Executive Chairman</i>) Michael Rosenberg, OBE (<i>Independent Non-Executive Director</i>) James Campbell (<i>Independent Non-Executive Director</i>) Nathalie Schwarz (<i>Independent Non-Executive Director</i>) David Nachson (<i>Independent Non-Executive Director</i>) Gershon Fraenkel (<i>Independent Non-Executive Director</i>) Hanoch Ehrlich (<i>Independent Non-Executive Director</i>)</p>
Registered Office	<p>90 Herzel Street P.O.Box 720 Netanya - 4210602 Israel</p>
Financial Adviser and Broker	<p>VSA Capital Limited New Liverpool House 15 Eldon Street London EC2M 7LD</p>
Auditors and Reporting Accountants	<p>Barzily & Co. Har Hotzvim 19 Hartom9 Jerusalem, 197775 Israel</p>
Registrar	<p>Computershare Investor Services (Jersey) Limited Queensway House Hilgrove Street St Helier Jersey JE11ES</p>
Legal advisers to the Company as to English law	<p>Charles Russell Speechlys LLP 5 Fleet Place London EC4M 7RD</p>
Legal advisers to the Company as to Israeli law	<p>Gornitzky & Co. 45 Rothschild Blvd. Tel Aviv, 6578403 Israel P.O.B. 29141</p>
Financial PR	<p>Luther Pendragon 43 Gracechurch Street London EC3V 0EJ</p>
Depository	<p>Computershare Investor Services Plc The Pavilions Bridgwater Road Bristol BS13 8AE</p>
Company website	<p>www.shefayamim.com</p>

PART 1 THE BUSINESS

Investors should read the whole of this Document and the documents incorporated herein by reference and should not just rely on the information set out in this Part 1 (The Business).

Introduction

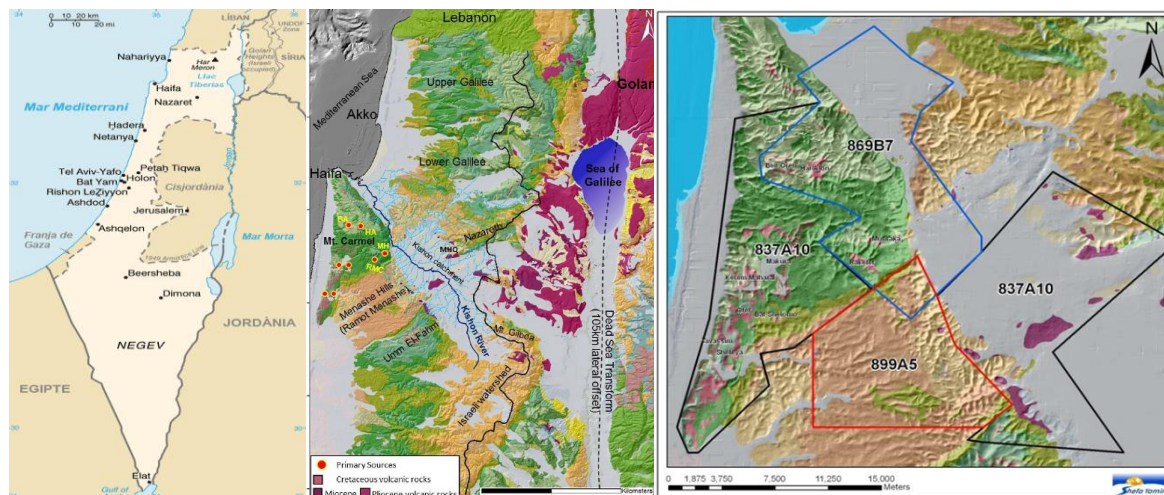
Shefa Yamim (A.T.M.) Ltd. (the “Company” or “Shefa Yamim”), founded in 1999, is the only coloured gemstone exploration company in northern Israel.

The Company’s exploration and prospecting permits are located across the Kishon River catchment area of Haifa and Mt Carmel in northern Israel, covering a total area of 614 km², some 85km north of Tel Aviv. The Company also maintains an operational centre with a processing facility and laboratory in Akko, a town north of Haifa.

The principal exploration targets for the Company are the primary volcanic sources on Mt Carmel and secondary sources of valley-filled sediment deposits throughout the Kishon River catchment. The Kishon Mid Reach Project is the Company’s most advanced exploration project and is being developed in parallel with the encouraging exploration advances achieved at the primary sources on Mt Carmel.

The unusual geological history of the region has resulted in the formation of a wide range of gemstones. Since commencing exploration activities, the Company has identified several potential targets which host a variety of gemstones, including natural moissanite crystals, hibonites, Carmel Sapphires, as well as precious stones, such as rubies, sapphires, and diamonds (micro and macro size).

As the Company is still at the exploration stage, it is not generating any revenue. The Company performs its exploration activities in accordance with the SAMREC CODE issued under the auspices of the South African Institute of Mining and Metallurgy, the Geological Society of South Africa and the Institute of Mine Surveyors of South Africa.



Location of exploration and prospecting assets, Northern Israel

The Company’s current exploration activity within the exploration (Permit 869B7) and prospecting permits (Permit 837A10 and 899A5) is focused on determining the distribution, sources and potential of the precious stones and heavy minerals.

Group Structure

As at the date of this Document, the Company is the 75% owned subsidiary of Shefa Yamim Ltd (the “Parent Company”), which is listed on the Tel Aviv Stock Exchange. All of the exploration and prospecting permits are held by the Company. The Parent Company functions solely as a “holding company” with no other business activity.

In April, 2012, the Company undertook a reverse takeover into the Parent Company such that the Parent Company acquired 75% of the Company's issued and outstanding share capital. In consideration for the issued Shares, the Company is entitled to payment of NIS 280 million. It has been agreed that each time the Parent Company raises equity capital, the Company will receive 85% of the funds raised until the full amount has been paid. As at 31 December 2016, the Company has been repaid a total of NIS 22,948,000 and as at 31 October 2017 the outstanding amount stands at NIS 259,364,000.

Exploration & Business Activities

The Company has been exploring the greenfield terrain, which includes the Kishon River catchment areas, the volcanic bodies on Mount Carmel, the Zevulun and Yizre'el valleys and their margins - Menashe Hills, Tivon-Alonim Hills and Nazareth range for the past 18 years (since 1999).

The Company's principal exploration targets on Mt Carmel are primary sources located in Mesozoic mafic and ultra-mafic volcanic rocks, and in the Kishon River catchment area secondary sources of valley-fill sediment deposits, sourced in Cenozoic mafic volcanic rocks.

Although gemstones including diamonds, rubies and sapphires have been found throughout the Company's permit area, it is along the Kishon River where the exploration campaign is most advanced.

Following an initial drilling and sampling campaign the Company has delineated a 4.5km long exploration target of some 1.1Mt of gemstone bearing gravel in the Kishon River catchment area. The focus in particular is on natural moissanite, hibonite, Carmel sapphire, sapphire, and ruby, which the Company has identified as part of its target mineral assemblage.

The rare presence of diamonds, along with an abundance of the two other high pressure minerals, natural moissanite and corundum (including sapphire, Carmel Sapphire and ruby), in several primary Mesozoic sources on Mt. Carmel and in the Cenozoic Kishon Valley secondary deposits, points to an unusual, off-craton geological history that warrants special attention.

Likewise, the presence of corundum in both Mesozoic mafic and ultra-mafic volcanics and younger Cenozoic mafic volcanics supports the potential for sapphire-dominant (and to a lesser extent, ruby) placers to have been developed along the Kishon Valley, especially in the Mid Reach zone between the Yizre'el and Zevulun Valleys.

Exploration Strategy

The Company's systematic approach towards exploration has de-risked these initial exploration campaigns in the statutory permits and has maximised the possibility of identifying potentially economic targets. The Company is currently focusing on advancing its exploration activities on targets which the Company deems have the greatest upside, such as the Kishon River, and more specifically the Mid Reach alluvial target. Although, the Company's exploration is now focused on the high priority Mid Reach target, evaluation of other moderate priority areas continues.

To date, the Company has employed several exploration techniques as part of its exploration strategy:

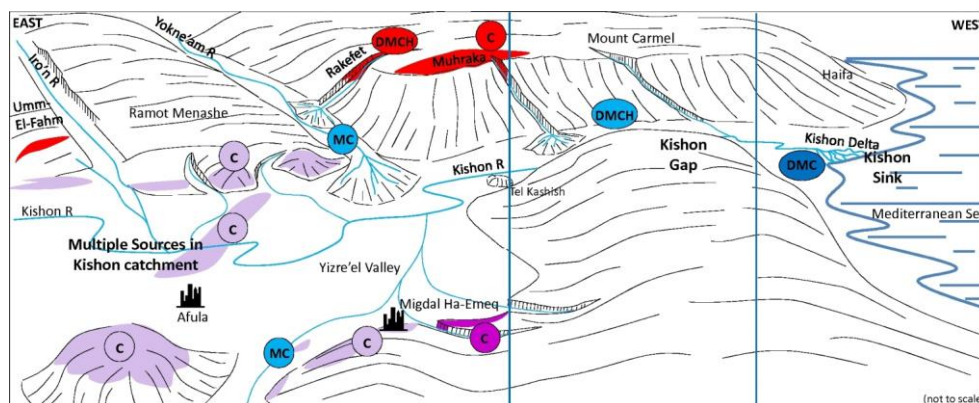
- Regional and detailed geological mapping in target areas, aided by remote sensing.
- Ground geophysical surveys using gravity and magnetic techniques.
- Geochemical surveys using the metal ions mobility method (MMI survey).
- Petrographic, mineral chemistry and whole-rock geochemical analyses. The analyses are conducted at accredited laboratories and universities.
- Reconnaissance and follow-up sampling of alluvial deposits (stream deposits) and in situ volcanic rock types.
- Small- and large-diameter (up to 1 m) drilling.
- Pit and trench bulk sampling.

Geological Model

In 2014, the Company developed, with its geological consultants, a source to sink geological model to guide the exploration campaign and help locate gemstone deposits. The geological model describes the actual appearance of the findings on the backdrop of the various exploration areas, from the volcanic source rocks in the headwaters of the Kishon catchment, all the way to the mouth of the Kishon River, according to the following classification; proximal-reach, mid-reach and distal-reach.

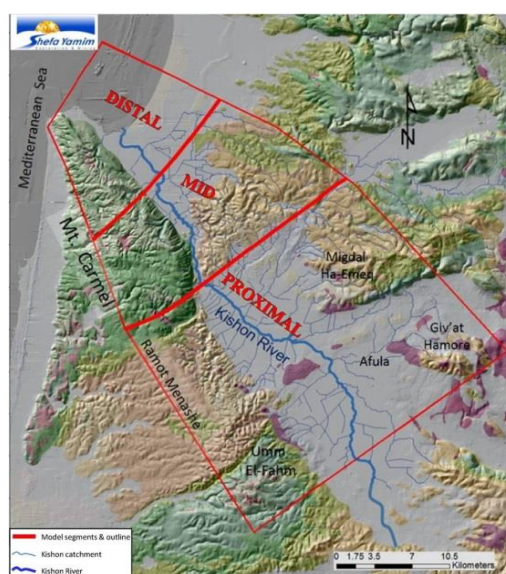
Each of these zones (reaches) has varying degrees of gemstone deposit potential, with the primary gemstone sources located in the volcanic bodies of the proximal and mid reach zones and the secondary alluvial deposits developed along the main tributaries and the Kishon River.

Essentially, exploration results continue to demonstrate that the volcanic bodies within the Company's permit area are the principal source of precious stones and industrial minerals found in the secondary alluvial deposits. Erosion of these volcanic bodies over a prolonged period of time releases these gemstones into the Kishon drainage, where they are transported into the main river and accumulated in great quantities to form alluvial deposits.



Cartoon of the “Source to Sink” geological model to guide placer exploration; view approximately south and not to scale. From left to right: proximal-reach, mid-reach and distal-reach

- **Proximal:** Upstream from Tel Kashish where the Kishon and its tributaries are relatively unconfined, tributaries and alluvial fans are small and therefore placer development is limited.
- **Mid-reach:** Between Tel Kashish and the Jalame Junction (Turkish Bridge) where the Kishon Valley is most confined and narrow conditions for placer development is optimal and further assisted by the input of oversize clasts from steep tributaries draining Mt. Carmel.
- **Distal Reach:** From Jalame Junction (Turkish Bridge) down to the Mediterranean Sea in the Bay of Haifa. This section incorporates the Kishon graben that hosts interbedded marine units of the palaeo-Haifa Bay. Best placer development due to upgrading through marine reworking, but inaccessible due to deep burial in the Kishon graben



In contrast to the deeply buried Distal Reach placer deposits, those in the Kishon Mid Reach are shallow and easily accessible. The Kishon Mid Reach placer stretches over some 4.5 km in the so-called Kishon Gap between Mount Carmel and the Tivon Hills and the gemstone deposits are preserved in low terraces flanking the modern Kishon River.

Exploration Target

Kishon Mid Reach

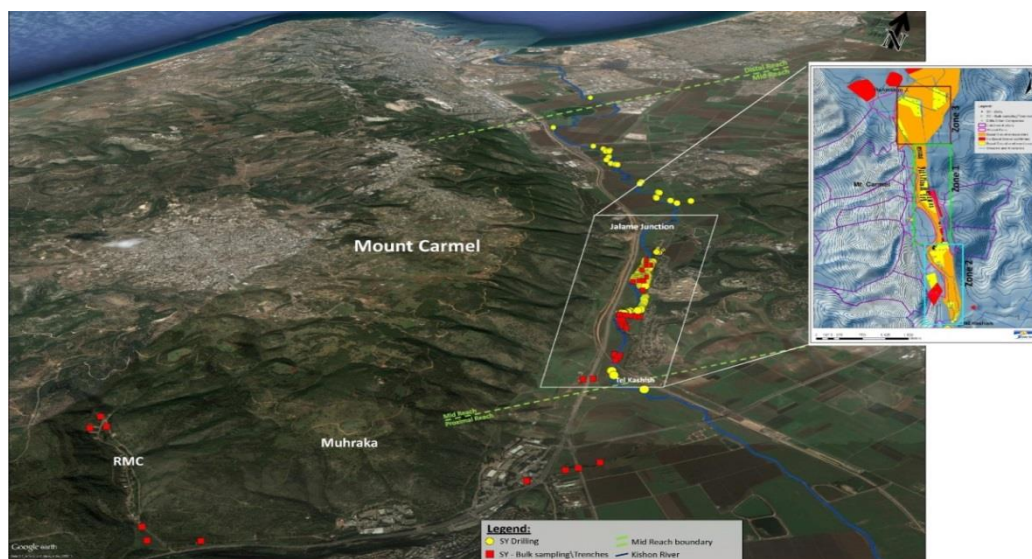
The Kishon Mid Reach placer is the Company's most advanced exploration project and ongoing exploration activities are being undertaken with the aim of defining a SAMREC compliant Mineral Resource. The target is 4.5 km long and about 150 m wide with gravel layers of variable thicknesses between 0.5 m and 4.5 m. All gemstones are entirely found within the gravel fractions.

The Company has delineated the Kishon Mid Reach placer in three zones, namely: Zone 1, Zone 2 and Zone 3, all of which are at different stages of development.

Zones 1 and 2, which cover c.3.5km of the total length of the placer, are believed to contain some 1.1Mt of gemstone bearing gravel. These two zones have been the focus of the Company's drilling and a bulk sampling programme. Out of roughly 186 boreholes drilled by the Company, a total of 137 boreholes were drilled and 15 bulk samples taken in Zone 1 and 23 boreholes and 26 bulk mini samples taken in Zone 2, whilst approximately over 6kt in bulk sampling has been completed in these two zones.

The mapping, drilling and pitting results obtained to date, which have been further modelled in 3-D, point to potential extensions of the Kishon Mid Reach placer in both upstream and downstream directions.

With Zone 1 now well delineated, future bulk sampling and drilling campaigns will focus primarily on Zone 2 and Zone 3 to determine the full resource potential of the Kishon Mid Reach placer.



Geological Upside

Mid Reach Potential

The Company is at an advanced stage in completing an inferred Mineral Resource on the Mid Reach of its Mount Carmel gemstone project. This potential resource of 1.1mnt covers only a portion of the identified exploration target of the alluvial placer. The Company believes that there is further potential for the expansion of the resource within the existing exploration target.

The Company through its sampling and drilling has discovered precious stones of significant weight and size. The largest ruby found to date was 1.7ct, the largest sapphire was 5.72ct, the largest natural moissanite was 4.14mm, the largest hibonite was 2.83ct and the largest Carmel Sapphire was 33.3ct. The Company believes that there is potential for future exceptional finds.

The Company's drilling and bulk sampling campaign has focused on a portion of the targeted acreage, which covers only a portion of the Mid Reach target area. The Company believes that there is further value potential that remains to be unlocked via the easily accessible, lower risk targets that the Company has identified.

Primary Deposits

Secondary alluvial deposits such as the Kishon Mid Reach placer derive their gemstones from the weathering and erosion of primary volcanic sources of which the Company has identified 4 inside the Company's exploration permit; Rakefet Magmatic Complex ("RMC"), Muhraka, Har Alon and Beit Oren.

To date, the majority of exploration work has been carried out on the RMC, which lies on the southern portion of Mount Carmel. The Company has completed geological mapping as well as rock and soil sampling, MMI geochemical surveys and geophysical survey, which has led to the identification of gem and industrial minerals in the Company's target mineral assemblage as well as kimberlitic indicator minerals.

Uniquely of the identified primary sources, the RMC is the only primary source to have yielded the full target mineral assemblage, with all minerals from the DMCH and HIM suites, including the recovery of a single micro diamond. The Company intends to further explore the potential of the RMC.

Further exploration and greater understanding of the primary sources which feed the secondary deposits could lead to further discoveries within the Company's exploration and prospecting permits. The Company intends to continue exploration of the volcanic bodies on Mount Carmel in parallel with its exploration and evaluation activities in the Kishon Mid Reach.

Competent Person's Report

Creo Design (Pty) Limited was engaged to prepare a Competent Person's Report (CPR) on the Company's assets. The full report is set out in Part 15 of this Document.

Bulk Sampling

In total, the Company has completed bulk sampling of approximately 11.4kt of gravel across the Company's exploration and prospecting permits. 6.6kt has been treated to date with a further 4.8kt awaiting treatment. In the Kishon Mid Reach a total of 15 bulk samples totalling 6.4kt of gravel were extracted from Zone 1 with a further 26 mini bulk samples in Zone 2 yielding some 3.5kt of gravel.

Of particular interest in the Kishon Mid Reach placer are the encouraging results from bulk samples SY-982 in Zone 2 and SY-1124, 1125, 1174 from Zone 1. To date SY 1124 has returned the highest gemstone grade of 255cpht, which was largely driven by the presence of Carmel Sapphire. The largest Carmel Sapphire found to date was a 33.3ct stone. The largest sapphire, in SY-990, was 5.72ct while SY-1124 included one of the major moissanite finds; the world record 4.14mm stone. Overall, 85% of the assemblage was in the 0.01-1.19ct range, 9% between 1.2-2.49ct and 6% larger than 2.5ct.

Bulk Sampling Highlights

Sample /(Zone)	Tonnage	Carmel Sapphire		Sapphire		Ruby		Moissanite		Hibonite		Total
		Carats	Grade, ctpht	Carats	Grade, ctpht	Carats	Grade, ctpht	Carats	Grade, ctpht	Carats	Grade, ctpht	
SY-982(2)	400	29.77	7.44	54.99	13.75	1.97	0.49	5.94	1.49	-	-	23.17
SY-1124(1)	400	991.43	247.86	24.27	6.07	0.89	0.22	3.54	0.89	-	-	255.03
SY-1125(1)	600	730.17	121.7	40.45	6.74	0.86	0.14	1.32	0.22	5.34	4.39	133.18
SY-1174(1)	533	374.31	70.23	41.13	7.72	0.48	0.09	0.84	0.16	-	-	78.19
SY-1175(1)	539	165.39	30.68	4.78	0.89	2.15	0.4	0.30	0.06	5.85	1.09	33.11
SY-1176(1)	508	28.28	4.71	0.33	0.06	0.01	0.00	0.17	0.03	0.05	0.01	5.67
SY-1210(1)	551	24.81	4.5	6.02	1.09	0.09	0.02	0.05	0.01	0.05	0.01	5.63
SY-1211(1)	518	37.87	7.31	26.54	5.12	0.04	0.01	0.09	0.02	-	-	12.46
SY-1213(1)	347	21.01	6.05	23.98	6.91	0.02	0.004	0.07	0.02	-	-	12.98
SY-1214(1)	530	42.34	7.99	14.85	2.80	0.59	0.11	4.89	0.98	4.89	0.92	11.85

Inferred Resource Estimation

For the Kishon Mid Reach placer to be considered a Mineral Resource there has to be an occurrence of gemstones of economic interest in such form, quality and quantity that there are reasonable and realistic prospects of gemstone extraction for the jewellery market. Alluvial gemstone placers demonstrate an inherent variability in the distribution of economic extractable gemstones due to the hydrological conditions under which deposition and concentration took place and therefore require a large volume of bulk sampling in order to attribute a grade to the placer target. Standard drilling

techniques and smaller pit samples are not able to provide sufficient sample volumes and, therefore, the required data to enable estimation of tonnages and grades.

The CPR highlights the fact that Shefa Yamim's exploration programme is managed by professionally skilled and technically competent personnel and that the work programme is comprehensive and in accordance with the SAMREC principles. From the current level of sampling and 3D modelling undertaken by the Company, the Kishon Mid Reach deposit displays a high precious stone grade with a potential for 1.1Mt of gemstone bearing gravel in Zone 1 and Zone 2. In addition, a low stripping ratio of 1:1.3 implies that this deposit could potentially be economically extractable at a low operating cost of mining.

However, according to the CPR, to date the Company has carried out an insufficient amount of drilling and bulk sampling across Zone 1 and Zone 2 to delineate a SAMREC compliant inferred Mineral Resource at the Kishon Mid Reach placer.

The three zones are currently at different stages of development:

- Zone 1: mostly explored, almost to resource level.
- Zone 2: partly explored to resource level.
- Zone 3: still to be delineated, exploration target level.

Competent Person's Report, Mineral Resource Estimation

	Zone 1	Zone 2	Total
Total Area (m ²)	160,000	365,000	525,000
Area Covered by Drilling (m ²)	91,000	365,000	456,000
Percentage	57%	100%	87%
Area Not Underlain by Basal Gravel (m ²)	6,000	0	6,000
DMC Bearing Gravel, Volume (m ³)	240,000	514,000	754,000
DMC Bearing Gravel, tonnage (mt)	350,000	750,000	1,100,000

Gemstone Assemblage

The Company's explorations have produced a unique array of gemstone findings across its permits, in both the primary volcanic sources and the secondary alluvial deposits. The Company has classified the mineral assemblage it considers its priority exploration objective, the target mineral assemblage, into two mineral suits:

- "DMCH" suite; which consists of **D**iamond, natural **M**oissanite and the **C**orundum gem varieties of sapphire, Carmel Sapphire, ruby as well as **H**ibonite.
- The "HIM" suite: **H**heavy **I**ndustrial **M**inerals, which consist of zircon, rutile, ilmenite and garnet.

The focus of commercial production based on the Kishon Mid Reach bulk sampling results will most likely be the corundum gem varieties (Carmel Sapphire, sapphire and ruby) and natural moissanite. Although 77 diamonds (micro and macrosized) have also been recovered, over the history of exploration by the Company of which 76 were alluvial diamonds from the Kishon River valley, these are generally rare and not exclusively targeted.

Natural Moissanite

Natural moissanite is exceptionally rare and only found in a few deposits worldwide, primarily as tiny crystals. To date, the Company has recovered over 3,000 moissanite crystals since the inception of its exploration programme with the largest crystal to date measuring 4.14 mm, the current world record. The Mount Carmel crystals are blue and green. The Gemmological Institute of America (GIA), having studied thirty of the crystals, has confirmed that they are natural moissanite.

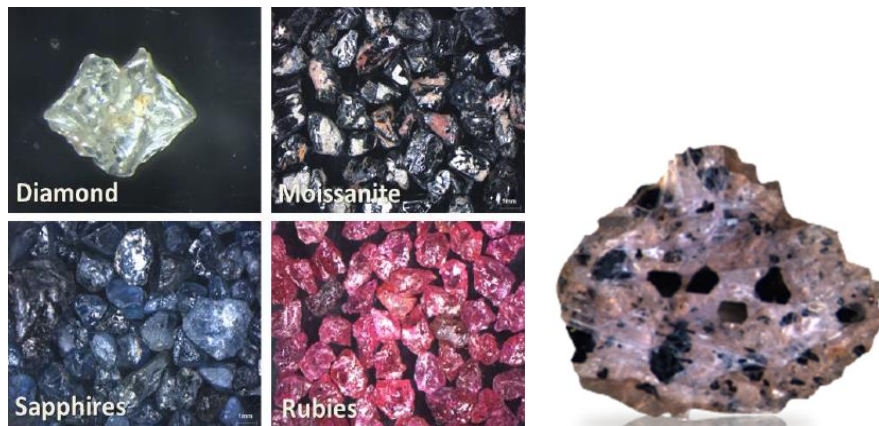
As natural moissanite is extremely rare, no values have yet been estimated for these crystals, although synthetic moissanite gemstones created by Charles & Colvard in the US are sold as jewellery. The synthetic crystals are typically colourless; however, blue, green, green yellow and yellow also exist. The Company expects that a natural crystal would trade at a premium to an equivalent synthetic stone.

Ruby and Sapphire

Ruby and sapphire are amongst the most valuable and most sought after precious coloured gemstones and along with diamonds are referred to as precious stones. Rubies and sapphires are both gem varieties of corundum: the term ruby specifically relating to corundum varieties that are red coloured, whereas conventional sapphires occur in a wide range of colours from almost transparent through to brown, green yellow, reddish and blue hues. A significant number of both rubies and conventional sapphires have been discovered by the Company, with some 4,000 stones of the latter having been recovered to date. The largest conventional sapphire found so far weighed 5.72 carats. The majority of these sapphires are shades of blue, including dark blue, but brighter colours of pink to red or a violet-blue are not uncommon.

Hibonite

The hibonite crystals, which are extremely rare and have previously only been discovered in a handful of locations globally, represent a sizable portion of the gemstones in the samples recovered. Due to its high status in the gem industry, hibonite should make a sizable contribution to the overall value of the gemstone population. Although quantitative data on the hibonite occurrence is not yet available, it is estimated to be at least a few per cent. of the total gem assemblage. The largest hibonite found by the Company so far is 2.83ct.



Precious stones recovered from the Kishon River gravels, including a hibonite crystal (right)

Carmel Sapphire

The Carmel Sapphire is recently discovered corundum similar in appearance to blue sapphire. The Company has received a trade mark from the Israeli Government to market the stones under the name “Carmel Sapphire”. The Company also has backing from Macquarie University in Australia, who stated that after polishing and cutting, the Carmel Sapphire has “unique qualities and significant potential as a gemstone”. The Company together with Professor William Griffin from Macquarie University is in the process of making an application to the International Mineralogical Association for the stone to be recognised as a precious gemstone.



Carmel Sapphire crystal with volcanic glass crust (left), Carmel Sapphire after removal of the volcanic glass crust and a basic polish (right)

Exploration results continue to demonstrate that the volcanic bodies within the Company's permits are the source of these placer minerals. Erosion of these volcanic bodies over prolonged periods would have released DMC minerals into a drainage network where they would have accumulated in greater quantities. Such an accumulation is now preserved in ancient river sediments and presents an attractive target for possible exploitation.

Processing

The Company's operational centre is located in the industrial zone of Akko, a town in northern Israel, which houses a treatment facility and laboratory and storage place over an area of 6,000m².

The premises in Akko host equipment able to process the bulk samples at a current capacity of around 30t per day. The exact handling capacity varies and depends on the sample material being processed. The equipment consists of a water system, scrubber unit, conveyors, two classifiers and two jig plants. After undergoing the washing, sieving and concentrating treatment process, the gemstones and heavy mineral concentrates are sorted in the Company's laboratory by trained staff. The Company has established a professional, organised and secure operation at their facility in Akko.

With the Company now moving into an advanced stage of exploration, the operational capacity at the Akko centre will need to be increased further to facilitate the evaluation phase.



Processing facility at Akko

Drilling

All drilling so far has been contracted out to local drilling companies. In recent years the Company has used the same drilling contractor, Piles and Bentonite Drilling Yosef Ltd. This contractor also provides when needed the equipment necessary for excavating the bulk sample trenches, although the Company may use other contractors in the future.

Collaborations

The Company has collaborated with geologists from major mining corporates and academic institutions who have proven expertise in the fields of geology, geochemistry, geophysics and within the field of exploration for precious stones to assist the Company in its exploration activities and to gain a better understanding of the Mt Carmel area.

Since January 2014, a scientific research team from Macquarie University led by Professor William Griffin, has been examining the unusual mineral occurrences and associations found in the Mount Carmel volcanic bodies and the alluvial placers of the Kishon Valley, with emphasis on the natural rare mineral moissanite, sapphires, rubies, zircons, hibonite and Carmel sapphire minerals.

In addition, De Beers South Africa Exploration worked with the Company extensively between 2003-2005 on the exploration of the volcanic sources on the Carmel mountain range and on the identification of kimberlite sources including the Kishon catchment. The De Beers Exploration team confirmed and verified the presence of kimberlitic indicator minerals and kimberlitic rock similar to those found in West Africa in the Company's permit area.

It should be noted that Prof. Mike de Wit and Dr John Ward, who have over seventy years of kimberlite and alluvial diamond exploration experience between them, and conducted the initial work by De Beers in 2004, have since left De Beers but continue to support Shefa Yamim as consulting geologists. Further information on the nature of their engagement is found in paragraph 16.9 of Part 12 – 'Additional Information' of this Document.

Company's Objectives

To date, the Company has spent US\$28 million on its exploration activities. The Company's extensive exploration programme has resulted in the identification of several sites with potential targets both in the primary volcanic bodies and the secondary bodies, which have to be explored further to determine their full potential.

The Company's primary objective over the coming years will be the successful development of the Mid Reach Zone. To achieve this target there are several near term milestones that Company will need to reach that will continue to technically de-risk and unlock the potential value of the Mid Reach.

- Continue drilling and sampling in order to determine the potential 1.1mnt Mineral Resource which would result in the definition of a maiden SAMREC Inferred Resource covering a portion of the Mid-Reach Zone.
- Receipt of a mining licence would enable the Company to sell stones that it has to date recovered through bulk sampling and other exploratory work and which are currently not saleable under the terms of the exploration permit.
- Commence initial production at the Kishon Mid Reach alluvial placer within the next 24 months.
- Aside from the RMC which contains the full TMA Suite minerals, moissanite has been discovered widely across the Kishon Valley in the distal, mid-reach and proximal zones, outside of the Mount Carmel drainage area. This suggests that the volcanic occurrences to the Eastern edges of the exploration area may also be primary sources.

Competitive Advantages

The Directors believe the Company has the following competitive advantages:

Experienced management team:

The Company has assembled a board of Directors with many years of business experience in the gemstone and diamond industry. They have an established network of contacts internationally and locally within the sector. Please refer to Part 4 - 'Board and Corporate Governance' for more detailed information on the Directors' experience.

Proximity to precious stone exchanges:

Israel is one of the world's leading diamond centres – a hub for both the trade and manufacture of polished diamonds and coloured gemstones. The Company is located approximately 110 kilometres away from the Diamond Exchange District near Tel Aviv and therefore the Company has a significant geographical advantage over peers in Africa and Australia.

Unique gemstone assemblage:

The Company has a unique array of gemstones, including precious stones in both primary and secondary settings, with the potential for significant new commercial deposits to be found within the permit area. The Company believes that this unique assemblage has significant value and marketing potential.

Low costs development:

Alluvial gemstone deposits, such as the Kishon Mid Reach placer, typically have low operating costs and are not capital intensive compared to primary deposit projects, and although the geological certainty associated with alluvial deposits is lower, these mines typically yield higher quality gemstone than primary deposits.

Prospecting & Exploration Permits

The Company holds the rights to two prospecting and one exploration permit covering a total area of 614km² in northern Israel. These permits are issued by the Inspector of Mines from the Ministry of Mining, Energy and Water of Israel.

The Company has an exclusive exploration permit #869B7 that includes an area of 173,888 dunam (approximately 174 km²) and is effective until 5 June, 2018. This permit is renewed on an annual basis, there have been no issues with the renewal process in the past and the Company anticipates no difficulty in renewing the permit going forward.

In addition, the Company holds two prospecting permits, permit #837A10 that encompasses an inclusive area of 327,551 dunam (approximately 328 km²) that is valid until 20 December 2017; and prospecting permit # 899A5 that encompasses an area of 112,904 dunam (approximately 113km²) that is valid until 20 December 2017. Again, the Company anticipates no difficulties in renewing the permits.

See paragraph 16.1 and 16.2 of Part 12 - 'Additional Information' of this Document, for further details on the contractual terms of the exploration and prospecting permits.

Once a deposit of gemstones of sufficient size is discovered, the Company will receive a certificate of discovery which will allow the Company to apply for a mining licence.

Royalties

The Company has agreed with the Ministry of Energy and Water that if it is granted a mining licence and develops an operating mine, it will pay a royalty of 5% of the value of the mined minerals to the Israeli Government.

Land Ownership

Ownership of surface rights for land covered by Shefa Yamim's exploration and prospecting permits is predominantly held by the Israel Land Authority, acting on behalf of the State of Israel. Small pockets of land in the north-eastern extreme of the prospecting permit are held by private landowners.

In case in the future the Company needs areas owned by the Israel Land Authority in order to open a mine, and subject to the receipt of a mining licence and/or a licence for a mining lease from the Inspector, the Company will be granted the exclusive right to engage in lease agreements with the Israel Land Authority, with regard to those areas.

The Company entered into a memorandum of understanding with Kibbutz Yagur in August 2000, according to which the Company is entitled to conduct excavations and drillings on the land leased by Kibbutz from the Israel Land Administration. Further information can be found in paragraph 16.10 of Part 12 – *'Additional Information'* in this Document.

To date, the Company has completed some drilling to a depth of 300m and has taken only minimal land samples from the land which is leased by the Israel Lands Administration to Kibbutz Yagur. The Company reasonably believes that to the extent it will need to do extensive mining on such lands, it can obtain the necessary approval of the Israel Lands Administration.

Nature and the Environment

The Company fully cooperates with all environmental authorities, including the Israel Nature and Parks Authority, the Kishon River Authority and the Kishon River Drainage Authority. Landowners are also engaged prior to any exploration activity in their fields, promoting binding relationships.

The Company recognises that its operations, more particularly sample excavation and drilling, can have an adverse effect on the environment. Consequently, the Company is committed to minimising environmental harm and rehabilitating disturbed sites to their original form.

In addition, the Company is mindful of Israel's scarce water resources and thus utilises advanced technology to recycle water that is needed for sample treatment. Neither chemicals nor pollutants are used throughout the entire treatment process. All reject materials, such as clay and coarse gravel from the treatment process, are trucked back to the original site from which they were removed. These materials are used to restore disturbed sites.

The Company's environmental responsibility also extends to daily work activities where paper recycling, electricity and water saving, and transport sharing are practised.

Business Strategy and Execution

The Company's strategy is to grow the business organically with a view to generating value for Shareholders through the development of the Kishon Mid Reach project, as well as potentially through the development of additional projects.

The Company also intends to maximise the value on the unique nature and diversity of gems found at the Company's property by building an internet platform for selling a wide range of branded gemstones directly to consumers.

Capital and Returns Management

The Company expects to raise gross proceeds of approx. £4.15 million from the Subscription and the Converted Debt which will be used for working capital for the Company.

Management and Employees

In the past three financial years, the Company has employed, on average, the following number of people:

Category	2016	2015	2014
Management	5	5	5
Office	1	1	1
Operational site Akko	6	7	8
Total	12	13	14

Until 31 December 2016, the Company was managed by 101 Gold Holdings Ltd, which employed a number of management employees of the Company, including the Company's current Chief Executive Officer, Avi Taub.

This contract was terminated and since 30 June 2017, there are 7 employees employed directly by the Company.

Dividend Policy

The Company has never declared or paid any dividends on the Shares. The Company does not intend to pay dividends in the near future. Any decision to declare and pay dividends will be made at the discretion of the Board and will depend on, among other things, the Company's results of operations, financial condition and solvency and distributable reserves tests imposed by corporate law and such other factors that the Board may consider relevant.

Corporate Governance

The Company has adopted a corporate governance structure, more fully outlined in Part 4 - *'Board and Corporate Governance'*.

PART 2

INDUSTRY OVERVIEW

Mining in Israel

According to the 2013 U.S. Geological Survey, the mining sector in Israel is small and accounts for about 1% of the country's GDP. The mining that does take place is primarily focused on the production of industrial minerals and inorganic chemicals. The mineral rich saline waters of the Dead Sea have allowed Israel to become a large scale producer of potash, salt, bromine, magnesia and magnesium metal, as well as a number of its derivative products. Israel's share of the world's estimated bromine production amounted to 32% and potash 6% in 2013.

The coloured gemstone and diamond mining industry is still in its infancy in Israel and although the country is not generally known as a producer of rough diamonds, Israel is one of the world's leading diamond cutting and trading centres. Domestic diamond cutting and polishing industries in Israel specialise in large, high value gemstones. According to the same U.S. Geological Survey report, in 2013, the value of Israel's cut and polished diamond exports was estimated at US\$6.2 billion, an increase from US\$5.6 billion in 2012, accounting for 6% of the world's polished diamond production. So far as the Company is aware of, there are no other gemstone exploration companies in Israel.

Regulatory Framework for Mining

The Mining Ordinance

The Company operates pursuant to exploration and prospecting permits received by the Inspector of Mines in the licensing and permitting administration for natural resources in the Ministry of Energy and Water of the State of Israel. Mining in Israel is regulated under the mining ordinance. The Inspector is responsible for granting prospecting permits, exploration permits and prospecting licences, as well as other licences in relation to any mining activity.

The granting and renewal of these permits and licences is subject to certain technical and financial capacities of the applicant.

Ore Discovered Under a Prospecting Licence, and Exploration Permit or a Prospecting Permit

Any ore removed from the area for which a prospecting permit, an exploration permit or a prospecting licence have been granted, are the property of the government of Israel. The holder of the permit or of the licence is precluded from transfer of any ore without the Inspector's agreement. Nevertheless, the holder of the permit or of the licence may remove samples of ore in order to examine their quality and commercial value.

The holder of a prospecting permit, an exploration permit or a prospecting licence must present reports to the Inspector, concerning any ore which was removed from the ground, and the operations conducted by the holder within the permit or licence area.

Certificate of Discovery

In the event that a permit or licence holder finds ore in worthwhile amounts it must inform the Inspector as soon as possible of the finding, in the manner set forth in the Ordinance. If the Inspector is satisfied that ore was discovered in worthwhile amounts as mentioned above, he will give the licence holder a "discovery certificate". The holder of a discovery certificate will have the exclusive right, for one year, to apply for mining rights, or for a mining lease contract from the Inspector, pursuant to the provisions of the Ordinance. At the end of the year, the right to apply for mining rights or for a mining contract will no longer exclusively belong to the holder of the discovery certificate.

Granting mining leases and mining rights (mining licence)

The mining ordinance outlines two legal arrangements for mining operations: mining rights or a mining lease. The Inspector will decide, according to the circumstances, whether to prefer the mining to be conducted as a mining right or as a mining lease. Given the absence of accumulated experience in Israel concerning grants of a mining lease or of mining rights to companies engaged in exploration for gemstones, the Company is unable to assume at present, which of the two solutions would be chosen by the Inspector, if and when the Company is entitled to benefit from either. The Minister of National Infrastructures may grant mining rights or mining leases with regard to areas as follows:

- (a) any area in respect of which a non-exploration notice was issued;

(b) any area not included in a valid prospecting licence, in which worthwhile quantities of ore were apparently discovered, and in respect of which no application was filed for a mining lease by a person entitled to obtain a lease as above, pursuant to a discovery certificate;

(c) any area in respect of which an application was filed for a mining right or for a mining lease, which was rejected or withdrawn; and

(d) any area in which mining rights or mining leases were forfeited, waived or expired.

A mining right or a mining lease will not be granted to the holder of a discovery certificate where the holder does not have sufficient capital or technical capability to mine the ore in the area contemplated in an application. The Minister may grant mining rights or a mining lease to a person who does not hold a discovery certificate in the cases described in paragraphs (b) and (c) above, only if a year has passed since a discovery certificate was given, in respect of the area, to another person and that person did not receive a mining right or a lease as above, or where the Inspector has ruled that the holder of the discovery certificate does not have sufficient capital or technical ability to mine the ore. In case a mining right or a mining lease is granted to a person other than the discovery certificate holder, the Minister of National Infrastructures may impose additional charges and use them in order to compensate the holder of the discovery certificate for the area, should that be necessary.

Mining rights

The area contained in a mining right shall not exceed the maximum area set forth in the mining ordinance. Mining rights are granted for a one-year period, but may be renewed for further one-year periods. A mining right entitles the holder to enter the areas in respect of which the mining rights were granted, and mine inside them in order to look for the alluvial ore – which must only be the ore described in the right – and to take and transfer the aforementioned ore obtained, subject to payment of rental fees to the owners of the land, and royalties to the treasury of the State of Israel, as set forth in the Ordinance.

Mining lease

The area contained in a mining right shall not exceed the maximum area set forth in the Ordinance, or the areas described in subsections (a) to (d) above in case the mining rights are granted to the holder of an exploration permit certificate. A mining lease is granted for a period not to exceed 30 years. At the end of the aforementioned mining period, the miner will receive a preemptive right to renew the lease under proper and fair conditions, so long as the ore is produced in worthwhile quantities. A mining lease grants a miner the right to enter the grounds described in the lease, and the exclusive right to mine the ore described in the lease, including every operation needed for the exploitation, purchase and receipt of ore, raising them to the ground and transporting them, subject to payment of rental fees to the owners of such grounds, and royalties to the treasury of the State of Israel as in the Ordinance.

The right to lease will be granted to the companies in respect of land whose area does not exceed twice the maximum area granted pursuant to an exploration permit.

The owners of a mining right or of the right for a mining lease must file a report once every six months, describing the quantity and value of the ore found thereby.

The lease fees in respect of mining rights and rights for a mining lease will be paid to the Inspector once a year in advance (hereinafter in this subsection, the “rights” and the “lease fees”). In case the lease fees are not paid in a timely manner, they shall bear interest at a 5% rate; and in case they are not paid within a month of the due date, the interest will increase to 10%. The Minister may forfeit the rights in the cases enumerated in the Ordinance, *inter alia*, in case the lease fees are six months overdue.

Gemstone Market

The National Resource Governance Institute suggests in a report published in May 2017 that based on the annual retail sales information available, the value of the polished gemstone market is in the US\$3bn to US\$4bn range, while the global production of rough, gem-quality coloured gemstones is worth between US\$ 2bn and US\$3bn. The coloured gemstone market has seen rapid demand growth, which has been driven primarily by coloured gemstones becoming more fashionable, with record prices being paid for jewellery at top auction houses. A significant portion of this demand comes from the emerging market economies, such as China and India, which are both experiencing growth in the middle classes and greater disposable income.

The coloured gemstone market, although similar to the diamond industry in some respects, has some distinct supply and demand fundamentals. Whereas the diamond industry has become increasingly transparent and organised, in part through extensive marketing efforts by De Beers, the coloured gemstone market is still opaque and informal. Coloured gemstones are still primarily mined by small scale or artisanal miners, who rely on networks of small dealers to deliver their product to cutters, polishers and ultimately jewellers and consumers. These dealers are not obligated in any way to produce data on sales figures. In addition, there is no universally accepted grading standard, which makes coloured gemstones more difficult to describe and appraise than diamonds.

However, not all gemstones are of sufficient quality and size to be used in jewellery. These stones normally find industrial applications as abrasives and in lasers, as they still hold key mineral properties. Those stones used for industrial application are traded at a significantly discounted price versus gem quality stones.

It should also be mentioned that the market fundamentals and pricing performance of diamond and coloured gemstone markets are separate and recent performance has been disparate. The coloured gemstone market has performed strongly as changing tastes in fashion and more consistent supply of ethically sourced and high quality stones have developed.

Factors Affecting Valuation

Country of Origin

The source of a ruby or sapphire has historically been a critical factor in gauging its potential value. Laboratory determination of origin has been an important tool for valuation by international auction houses. This is, however, not without controversy given the potential for seemingly inferior stones to realise higher prices owing to their origin alone.

Gemstones from different regions do have specific characteristics, hence the possibility of laboratory based tracing and differentiation. Particular inclusions can distinguish these origins, for example, rutile silk is a common feature of Burmese rubies. However, in higher quality stones these distinguishing characteristics may become blurred with reports that sapphires from Madagascar, Sri Lanka and Myanmar are much alike.

More recently, the need to differentiate amongst the origin of the stones has been tied to political concerns, such as the ban by the US on imports of rubies from Myanmar (Burma). Although most export restrictions between the US and Myanmar were relaxed in 2013, those relating to jade and rubies were maintained. This ban amongst other things has prompted the marketing and rise of ethically sourced coloured gemstones.

The Four Cs; Colour, Clarity, Cut and Carat

Much like the diamond market, the price of coloured gemstones is determined by the four Cs of colour, clarity, cut and carat. More subjectivity prevails in the coloured stone market given the lack of a large scale marketing processes and consequently there are no universally accepted standards; however, the principles of valuation remain the same. It should be noted that these factors cannot truly be determined while the stone is in its rough form, hence the lower valuations for rough stones.

- **Colour:** The colour is typically the most important factor in the determination of gemstone value. The preferred colours for each stone vary, although the greater the deviation in terms of vivacity and light and darkness away from the usual preference will diminish the value of the stone. Colour is composed of three dimensions; hue, tone and saturation. Hue refers to the immediate colour i.e. red, yellow or blue, while tone denotes the lightness, and saturation reflects the purity of the hue.
- **Clarity:** A gemstone's clarity is directly related to its rarity. Clarity is affected by inclusions which lie within the stone or blemishes which lie on the surface of the gem. Each variety of gemstone has its own clarity standards. Unlike the specific grading system used for determining diamond clarity using magnification equipment, the standard for coloured gemstones is based on optical assessment alone. Gemstones are categorised into three groups and sapphires and rubies of all colours are considered type II gems.
- **Cut:** The cut refers to the shape or design of a stone as well as the stone's proportion and finish. The cutting process is designed to maximise the stone's ability to interact with light. Gemstone cutters will determine the most appropriate cut for a rough stone based on the natural cleavage planes as well as being mindful of any inclusions in the stone. Typically the cutting process results in the loss of around 50% of a rough stone.

- **Carat Weight:** The size of a gemstone is measured by its weight and not its dimensions. One carat is equal to approximately 0.2 grams. The specific density of a gem mineral may mean that two stones of the same dimensions may have different carat weights. Typically valuations increase with size although the largest stones are usually broken up to make them of a practical size for use in jewellery.

PART 3

OPERATING AND FINANCIAL REVIEW OF THE COMPANY

The following discussion of the Company's financial condition and results of operations should be read in conjunction with the historical financial information on the Company in Part 8 – 'Historical Financial Information of the Company', Part 9 – 'Unaudited Interim Accounts' and the information relating to its business included elsewhere in this Document. The discussion includes forward-looking statements that reflect the current view of the Directors and involves risks and uncertainties. The Company's actual results could differ materially from those contained in any forward-looking statements as a result of factors discussed below and elsewhere in this Document, particularly in the section entitled - 'Risk Factors'. Investors should read the whole of this Document and not just rely upon summarised information.

Overview

As of the date of this document, Shefa Yamim (A.T.M.) is the 75 % owned subsidiary of Shefa Yamim Ltd, which is listed on the Tel Aviv Stock Exchange. All of the exploration and prospecting permits in Israel, as discussed in Part 1 – 'The Business', are held by the Company. The Parent Company, Shefa Yamim Ltd, does not hold any other assets or have any other forms of operating income.

The Company's principal assets are an exploration permit and two prospecting permits where the Company has carried out an extensive exploration programme, and has delineated several potential primary sources and secondary deposits that host gemstones. Currently the Company is focusing on mapping, drilling of boreholes and taking bulk samples at the Kishon Mid Reach placer, the Company's priority target. The Company intends to continue its exploration programme with the aim of delineating a Mineral Resource that is compliant with the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the "SAMREC"). The CPR highlights the fact that currently the Kishon Mid Reach project has an exploration target of 1.1Mt of gemstones bearing gravel with significant upside potential.

In total, the Company has carried out over 11,000 tonnes of bulk sampling and has recovered a variety of different gemstones. Findings include dark blue sapphires and deep red rubies, which are precious stones, as well Carmel Sapphire, large natural moissanite crystals and hibonite.

Principal Risks and Uncertainties

The Company is currently at an early stage of development and has yet to commence operations at the Kishon Mid Reach Project. The Company currently has no cash producing properties and therefore no positive cash flow. The Company will continue to have negative operating cash flow until commercial production is reached.

The ability of the Company to continue its activities as a going concern depends to a greater extent on its ability to continue to raise capital and/or debt. Considering the fact that gemstone exploration is unique to the Company in Israel, there is a risk that the Company only has a limited capacity to raise capital and/or debt from private investors and/or from the public.

The Parent Company is traded on the Tel Aviv stock exchange and is a holding company with no substantial income of its own. The Parent Company's continued going concern is dependent on its ability to raise capital. As outlined in the section entitled '*Parent Company Debt Liability*' below, the Parent Company has a debt of NIS 259,364,000, as of the 31 October 2017, owed to the Company, and the inability of the Parent Company to raise the required funds and failing to continue as a going concern would have significant implications for the Company. The Company has no means to enforce the repayment of the Parent Company Debt Liability and there is no guarantee that the total amount outstanding will ever be paid.

In addition, as the Company has no previous experience in the mining industry and as there has been no previous attempt to mine for gemstones in Israel, there is a risk that the budgets planned by the Company in order to pursue its objectives shall not be sufficient and that the Company would require additional funding to complete the exploration plans.

Results of Operations

The following discussion and analysis of the Company's results of operations and financial conditions is based on the Company's historical results as extracted from the historical information contained in Part 8 of this Document.

NIS'000	Six months to 30 June 2017	Year Ended 31 December		
		2016	2015	2014
Costs and expenses				
General and administrative expenses	(364)	(914)	(1,028)	(1,199)
Capital gain	-	178	37	-
Operating loss	(364)	(736)	(991)	(1,199)
Financial expenses	(560)	(383)	(153)	(191)
Financial income	208	570	834	756
Financial income, net	(352)	187	681	565
Loss for the year and comprehensive loss attributed to the Company's shareholders	(716)	(549)	(310)	(634)
Basic and diluted loss per share attributed to the Company's shareholders	(0.076)	(0.058)	(0.033)	(0.068)

Year ended 31 December 2016 ("FY2016") compared to year ended 31 December 2015 ("FY2015") and the six months ended 30 June 2017 ("HY2017")

Revenue

In the years ended 31 December 2014, 2015 and 2016 and the six months ended 30 June 2017, the Company did not record any revenue because it was still in the exploration phase of operations. The Company did not undertake any commercial mining activity.

Administrative Expenses

Total administration expenses in NIS decreased by approximately 11% (NIS 114,000) in FY2016. This was principally due to the fact that the Company's Financial Controller started receiving his salary from the Parent Company at the beginning of the year. The administrative expenses for HY2017 stand at NIS 364,000.

Other Income

The income of NIS 178,000 in FY2016 arose in respect of capital gains from the sale of certain fixed assets.

Finance Cost

The increase in financial expenses of 150%, (NIS 230,000) in FY2016 derives mainly from the cost of mobilisation of capital and adjustment of the fair value of loans received in December 2016 at a conversion price of 15% of the issuance price. The amount of NIS 560,000 in HY2017 is mainly due to adjustments of the fair value of convertible loans received over that period.

Financial Income

The income of NIS 570,000 and NIS 208,000 in FY2016 and HY2017, respectively, relates to interest payments received from the Parent Company in relation to the outstanding Parent Company Debt Liability.

Year ended 31 December 2015 ("FY2015") compared to year ended 31 December 2014 ("FY2014")

Revenue

In the years ended 31 December 2014, 2015 and 2016 the Company did not record any revenue because it was still in the exploration phase of operations. The Company did not undertake any commercial mining activity.

Administrative Expenses

Total administration expenses in NIS decreased by approximately 17% (NIS 171,000), principally due a decrease in professional consultation fees, including management fees. In 2015 the Parent Company paid 25% of the management fees associated with 101 Gold Holdings Ltd., a company contracted to provide management services to the Company and the Parent Company. The total reduction in management fees was approximately NIS 100,000.

Other Income

The income of NIS 37,000 in FY 2015 arose in respect of capital gains from the sale of fixed assets.

Finance Cost

The decrease in financial expenses of 20%, (NIS 38,000) in FY2015 is in relation to a decrease on interest payments on loans that the Company received in 2009-2011.

Financial Income

The income of NIS 834,000 in FY2015 relates to interest payments received from the Parent Company in relation to the outstanding Parent Company Debt Liability.

Liquidity and Capital Resources

The Company's principal source of liquidity is its own cash resources, which at 30 June 2017, amounted to NIS 700,000.

Historically, the Company has relied on investor private allocations to finance development costs, working capital and to ensure its liquidity. It is the Company's intention that the Company's short term exploration costs over the next 18 months will be funded from the proceeds of the Subscription.

Cash Flow Statement Data

NIS'000	Six Months to 30 June 2017	Year Ended 31 December		
		2016	2015	2014
Cash flow from operating activities	(615)	(700)	(813)	(1,426)
Cash flow from investing activities	(1,458)	(2,233)	(3,694)	(4,443)
Cash flow from financing activities	2,762	2,923	4,507	5,871
Net cash flow	689	(10)	0	2
Linkage difference in regard to cash and cash equivalents	10	10	-	(2)
Cash and cash equivalents at the beginning of the year	1	1	1	1
Closing cash position	700	1	1	1

Operating Activities

The Company's net cash outflow from operating activities amounted to NIS 615,000 for HY2017, NIS 700,000 for FY2016 and a net outflow of NIS 813,000 for FY2015.

The net cash outflow decrease of approximately NIS 100,000 from FY 2015 to FY2016 was due to an overall decrease in the administrative expenses in that year. FY2015 also saw a decrease in net cash outflow to the previous year of approximately NIS 613,000. This change was mainly due to a decrease in the general administrative expenses and an increase in the balance of trade payables.

Investing Activities

The Company's net cash utilised in investing activities was NIS 2,233,000 for FY2016 compared to NIS 3,694,000 million in FY2015. The decrease in cash utilised was from a reduced investment in fixed assets in the amount of approximately NIS 1,000,000 for the year.

The net investing cash flow in FY2015 was also approximately NIS 749,000 less than for FY2014. Although FY2015 saw a significant increase in the purchase of fixed assets to the previous year, the Company had issued a loan to the Parent Company in the amount NIS 1,000,000 in FY2014.

The net investing cash flow for HY2017 relates primarily to investment activities in exploration and prospecting assets.

Financing Activities

The Company's net cash inflow from financing activities for FY2016 was NIS 2,923,000 compared to NIS 4,507,000 for FY2015 and NIS 5,871,000 for FY2014. The large inflow of cash for each period was mainly attributable to the payments received from the Parent Company in relation to the outstanding Parent Company Debt Liability.

The net cash inflow of NIS 2,762,000 from financing activities for HY2017 was due to proceeds from convertible loans as well as the Parent Company Debt Liability,

Parent Company Debt Liability

On April 4 2012, the Company undertook a reverse takeover into the Parent Company and in accordance with the approval of the Tel Aviv-Yafo District Court, the Company allotted 7,040,700 Shares to the Parent Company, constituting 75% of the Company's issued and outstanding share capital on a fully-diluted basis immediately after the allotment.

According to an agreement between the Company and the Parent Company, the Company is entitled to a payment of NIS 280,000,000 (the "Parent Company Debt Liability") for the abovementioned shares' issuance, linked to the Consumer Price Index and bearing interest of 4% per annum. The outstanding debt amount is to be paid exclusively from equity raised by Shefa Yamim Ltd, with the Company entitled to 85% of any such equity raised (net after expenses), until full repayment of the liability. As at 31 December 2016, the Company has been repaid a total of NIS 22,948,000 and the current liability as at 31 October 2017 stands at NIS 259,364,000. There is no guarantee this sum will be paid back in full and the Company does not have any means of enforcing the full repayment.

Financing

Borrowings

101 Gold Holdings Ltd Loan

As at the date of this document, the Company has NIS 807,000 in debt outstanding to 101 Gold Holdings Ltd. The terms of this loan are equivalent to those of the loan taken out by 101 Holdings Ltd. from Bank Leumi Ltd. The loan bears an interest rate of prime +3.6% and has to be repaid by 17 April 2023.

Borrowing Summary

The following table sets out information relating to the Company's short term and long term borrowings for the last three financial years and the six months ended 30 June 2017:

NIS'000	Six Months to 30 June 2017	Year Ended 31 December		
		2016	2015	2014
Short term loans	1,202	696	517	809
Long term loans	725	778	1,018	914
Total	1,927	1,474	1,535	1,723

Short term loans

The short term borrowing by the Company for FY 2016 and FY 2015 included a loan from Reuven Shaer, a Shareholder, bearing an annual interest rate of 10% and a fixed credit from a bank in the amount of NIS 300,000. The overdraft account for the fixed credit was personally guaranteed by Avi Taub, the Chief Executive Director of the Company.

Additional short term loans for HY2017 included a NIS 120,000 bank loan and a NIS 200,000 increase in the Company's overdraft account. The Company also initially agreed to a NIS 180,000 convertible loan but the agreement was cancelled post 30 June 2017.

Long term loans

The long term borrowing of the Company for FY2016 and FY2015 included a bank loan, which was repaid in FY2015, a shareholder loan and a loan from a supplier.

The shareholder loan was from 101 Gold Holding Ltd, of which NIS 725,000 was considered a long-term liability and was outstanding as of HY2017. The loan bears an annual interest rate of prime +3.6% and has a number of repayment dates.

The loan from the supplier was received in FY2015 for the purchase of tractor for the Company's operating activities. The loan is to be repaid in 24 equal monthly instalments and bears an annual interest rate of 5%. As of FY2016 the outstanding loan amount was NIS 137,000.

Financial Lease

The Company has one Ford Explorer vehicle under a liability in respect of financial leasing in the amount of approximately NIS 131,000. As of December 31, 2016 NIS 40,000 of the liability was presented as a current liability.

The amount of the liability was computed by capitalization of the leasehold payments for the payments period at an annual interest rate of 6.9%. The amounts are linked to the Consumer Price Index.

PART 4

BOARD AND CORPORATE GOVERNANCE

The Directors

The Directors of the Company following Admission will be:

- Abraham 'Avi' Taub (*Chief Executive Officer & Executive Chairman*)
- Michael Rosenberg, OBE (*Independent Non-Executive Director*)
- James AH Campbell (*Independent Non-Executive Director*)
- Nathalie Schwarz (*Independent Non-Executive Director*)
- David Nachson (*Independent Non-Executive Director*)
- Gershon Fraenkel (*Independent Non-Executive Director*)
- Hanoch Ehrlich (*Independent Non-Executive Director*)

Abraham 'Avi' Taub (*Chief Executive Officer*), age 66

Avi Taub, Chief Executive Officer, served in the Israeli Defence Forces for four years, compulsory in Israel, later becoming a commander in an elite unit. He has over 45 years' experience in all stages of the gemstone industry, including treatment of raw diamonds, polishing and cutting at his family-owned business, one of the supplier of diamonds to the illustrious Israeli diamond industry. He later diversified his professionalism from diamonds to precious stones and jewellery design, providing him with invaluable experience and contacts within the jewellery industry.

A scholar of Gemmology and Mineralogy, Mr Taub embarked on a number of ventures within the gemstone industry becoming the first person to establish an innovative and highly effective central marketing system in Israel which facilitated the sale of gemstones to the end user.

In 1999, he became one of the founders of Shefa Yamim (A.T.M.) Ltd and has been instrumental in its evolution and development to date.

Michael Rosenberg, OBE (*Independent Non-Executive Director*), age 78

Michael Rosenberg, Independent Non-Executive Director, spent his early business years with the merchant bank, Samuel Montagu and Co. Ltd and joined the board in 1971 as Director of Corporate Finance. In 1974, he left the bank to co-found a healthcare business which became a global business over the next 10 years.

From 1987 to 1999 he was a shareholder, director and later chairman of Raphael Zorn Helmsley Holdings Ltd (now Numis Corporation). During that period, he was instrumental in bringing Israeli companies to the AIM market.

He has served on a number of Israeli boards both as an external director and as chairman including: Amiad Filtration Services Ltd, Dori Media Ltd, Pilat Global Media Plc and more recently Starcom plc, where he is Non-Executive Chairman. He is Non-Executive Chairman of Catalyst Media Group plc. He is also a Non- Executive Director of Ion Pacific (UK) Ltd, an FCA regulated company.

Mr Rosenberg chaired a DTI committee on trade with Hong Kong for several years and also served on the board of the China British Business Council. He was awarded the OBE for services to exports in 1994. He is a published author of children's books and mentor to the Princes Trust, helping young people to start new businesses.

James AH Campbell (*Independent Non-Executive Director*), age 53

James AH Campbell, Independent Non-Executive Director, graduated as a geologist from the Royal School of Mines (Imperial College, London University) in 1985 and completed an MBA at Durham University in 1998. He has over 30 years' experience in the diamond industry having spent over 20 years' with De Beers' Global Mining and Exploration Group before becoming Managing Director of African Diamonds plc in 2006.

Mr Campbell has extensive board and sector experience and has served on several UK and Canadian boards including African Diamonds plc, West African Diamonds, Stellar Diamonds plc and Rockwell Diamonds Inc. He is currently Managing Director of Botswana Diamonds plc.

Mr Campbell is a Fellow of the Institute of Mining, Metallurgy & Materials, a Fellow of the South African Institute of Mining, a Fellow of the South African Institute of Mining, Metallurgy & Materials, a Fellow of

the South African Institute of Mining & Metallurgy, Chartered Engineer (UK), Chartered Scientist (UK), a Professional Natural Scientist (RSA) and a Fellow of the Institute of Directors South Africa.

Nathalie Schwarz (*Independent Non-Executive Director*), age 47

Nathalie Schwartz, Independent Non-Executive Director, a graduate from the University of Manchester and a qualified lawyer, started her career at leading global law firm Clifford Chance focusing on cross-border mergers and acquisitions, corporate restructurings, IPOs and private equity. Ms Schwartz has operated as an Executive Director on the boards of two of the UK's leading public companies in the media and digital technology sector, namely as Group Commercial Director at Channel 4 Television Corporation and as Group Strategy and Development Director at Capital Radio PLC.

She also served as a Non-Executive Director on the Board of Matomy Media PLC (digital advertising services), which listed on the London Stock Exchange in 2014 and was a Non-Executive Director on the board of publicly listed companies Amiad Water Systems PLC (water filtration) and Photon Kathaas (Indian film production and distribution). She is currently a non-executive director of UK publicly listed company Wilmington Group PLC (digital data, publishing and training).

Ms Schwartz specialises in growing businesses, strategy, operational management, developing new commercial and technological opportunities and mergers and acquisitions.

David Nachson (*Independent Non-Executive Director*), age 69

Israel David Nachshon, Independent Non-Executive Director, a graduate in Rabbinical Ordination, has extensive ties within the Jewish community worldwide as well as established government relations in Israel. He has been on the board of Shefa Yamim (A.T.M.) Ltd and Shefa Yamim Ltd since 1999, when the company was founded. Mr Nachshon is a Board member of the Jewish community institution in Kiev, Ukraine, Chairman of the Chabad Jewish Mobil Mitzva Centre, Chabad Youth Movement Tzivos Hashem and Chabad Educational Institutions.

Gershon Fraenkel (*Independent Non-Executive Director*), age 65

Gershon Fraenkel, Independent Non-Executive Director, is a British Citizen and founder of WST Charity Ltd, in North West London which focuses on alleviating poverty within the Jewish Community in the area. He has successfully launched many international businesses in the last 25 years, including SEACO Group of Companies and Linkedell Ltd, as result of which he acts as an intermediary and adviser of international transactions to companies in Israel and the UK. Mr Fraenkel is fluent in English, Hebrew and Yiddish.

Hanoch Ehrlich (*Independent Non-Executive Director*), age 52

Hanoch Ehrlich, Independent Non-Executive Director, is a qualified lawyer and has held an Israel Bar Association licence since May 1994. Mr Ehrlich is specialised in contract law, company law and all aspects of commercial law. He has worked on several international M&A transactions, including advising companies in Central and Eastern Europe. He is experienced in litigation, having represented various entities such as the Israel Military Industries Ltd., the Shikun U'binui Group (the largest construction conglomerate in Israel), the Ofer Brothers Group, the Yitzhak Tshuva Group, Bank HaPoalim, the Israel Discount Bank, the Industrial Development Bank, the Israel Shipping Bank, Amdocs (Israel) and the Israel Citrus Marketing Board.

Following Admission and as the business of the Company develops, the Company will consider appointing additional Directors.

Senior Manager

Vered Toledo (*Chief Operating Officer*), age 49

Vered Toledo, Chief Operating Officer, has led Shefa Yamim's exploration and operations in Akko for over 18 years. During this time, she has collaborated with some of the world's leading experts and international geologists. She is responsible for field, plant and laboratory activities as well as overseeing staff affairs. Ms Toledo has attended courses in Business and Administration and Rough Diamonds from the International Gemmological Centre. She has extensive in-field experience with a focus on gemstones. In the past, Ms Toledo served a commander in the Israeli Air Force.

Strategic decisions

Members and responsibility

The Directors are responsible for carrying out the Company's objectives, implementing its business strategy and conducting its overall supervision. Strategic decisions will all be considered and determined by the Board.

The Board will provide leadership within a framework of prudent and effective controls. The Board will establish the corporate governance values of the Company and will have overall responsibility for setting the Company's strategic aims, defining the business plan and strategy and managing the financial and operational resources of the Company.

Conflicts of interest

The Board has a policy for managing conflicts of interest.

Frequency of meetings

The Board will schedule monthly meetings in Israel and will hold additional meetings as and when required.

Corporate governance

The Company will generally observe the requirements of the UK Corporate Governance Code. As at the date of this Document, the Company is, and at the date of Admission will be, in compliance with the UK Corporate Governance Code, save as set out below:

The UK Corporate Governance Code also recommends the submission of all Directors for re-election at annual intervals. Directors will be required to submit for re-election every three years from Admission.

The Company will, from Admission, have established remuneration, audit and nomination committees, as follows:

Remuneration Committee

The Remuneration Committee provides recommendation on the Company's policy on executive remuneration, determines the levels of remuneration for executive directors and the chairman and other senior executives. The Remuneration Committee will normally meet not less than four times a year.

The Remuneration Committee is chaired by James Campbell and its other members are Michael Rosenberg, Gershon Fraenkel and Nathalie Schwarz. The UK Corporate Governance Code recommends that all members of the Remuneration Committee be non-executive directors, independent in character and judgment and free from any relationship or circumstance which may, could or would be likely to, or appear to, affect their judgment. The Board considers that the Company complies with the requirements of the UK Corporate Governance Code in this respect.

Under the Israeli Companies Law, the board of directors of a public company must appoint a remuneration committee. The remuneration committee must be comprised of at least three directors, including all of the external directors, who must constitute a majority of the members of the remuneration committee. Each remuneration committee member that is not an external director must be a director whose compensation does not exceed an amount that may be paid to an external director. The remuneration committee is subject to the same Israeli Companies Law restrictions as the audit committee as to who may not be a member of the committee.

The duties of the remuneration committee include the recommendation to the Company's Board of a policy regarding the terms of engagement of office holders, referred to as a compensation policy. That policy must be adopted by the Company's Board, after considering the recommendations of the remuneration committee, and will need to be brought for approval by the Company's shareholders, which approval requires a special approval for compensation. A special approval for compensation requires shareholder approval by a majority vote of the shares present and voting at a meeting of shareholders called for such purpose, provided that either: (a) such majority includes at least a majority of the shares held by all shareholders who are not Controlling Shareholders and do not have a personal interest in such compensation arrangement; or (b) the total number of shares of non-Controlling Shareholders and shareholders who do not have a personal interest in the compensation

arrangement and who vote against the arrangement does not exceed 2% of the company's aggregate voting rights. The Company will be required to adopt a compensation policy within nine months following Admission.

The compensation policy must serve as the basis for decisions concerning the financial terms of employment or engagement of office holders, including exculpation, insurance, indemnification or any monetary payment or obligation of payment in respect of employment or engagement. The compensation policy must relate to certain factors, including advancement of the Company's objectives, the Company's business plan and its long-term strategy, and creation of appropriate incentives for office holders. It must also consider, among other things, the Company's risk management, size and the nature of its operations.

Audit Committee

The Audit Committee's role will be to assist the Board with the discharge of its responsibilities in relation to financial reporting, including reviewing the Company's financial statements and accounting policies, audits and controls (both internal and external), reviewing and monitoring the scope of the annual audit, advising on the appointment of external auditor and reviewing the effectiveness of audit controls.

The Audit Committee comprises Michael Rosenberg as chairman and includes James Campbell, Gershon Fraenkel and Nathalie Schwarz, and will meet as and when necessary, and not less than twice per year.

As at the date of this Document, the Board has voluntarily adopted a dealing code for Directors' dealings based on the Institute of Chartered Accountants and Administrators specimen. The Board will be responsible for taking all proper and reasonable steps to ensure compliance with the dealing code by the Directors and to ensure that the Company, the Directors, any PDMRs and their respective PCAs are in compliance with the provisions of the Market Abuse Regulation.

If at the time at which an external director is appointed all members of the Board who are not Controlling Shareholders or relatives of Controlling Shareholders of the Company are of the same gender, the external director to be appointed must be of the other gender. A director of one company may not be appointed as an external director of another company if a director of the other company is acting as an external director of the first company at such time.

Under the Israeli Companies Law, the Company is required to appoint an audit committee. The Audit Committee must be comprised of at least three directors, including all of the external directors and one of whom must serve as chairman of the committee. The Audit Committee may not include the Chairman, a Controlling Shareholder of the Company or a relative of a controlling shareholder, a director employed by or providing services on a regular basis to the company, to a controlling shareholder or to an entity controlled by a controlling shareholder or a director who derives most of his or her income from a controlling shareholder.

In addition, under the Israeli Companies Law, the audit committee must consist of a majority of unaffiliated directors. In general, an "unaffiliated director" under the Israeli Companies Law is defined as either an external director or as a director who meets the following criteria:

- he or she meets the qualifications for being appointed as an external director, except for (i) the requirement that the director be an Israeli resident (which does not apply to companies such as ours whose securities have been offered outside of Israel or are listed outside of Israel) and (ii) the requirement for accounting and financial expertise or professional qualifications; and
- he or she has not served as a director of the company for a period exceeding nine consecutive years. For this purpose, a break of less than two years in the service shall not be deemed to interrupt the continuation of the service.

Nomination Committee

The Nomination Committee is responsible for recommendations to the Board for the appointment of additional directors or replacement of current directors, for reviewing the composition and makeup of the Board, and for succession planning, taking into account the skills, knowledge and experience that will be needed on the Board in the future. The Nomination Committee comprises Avi Taub as chairman and includes James Campbell and Michael Rosenberg and will meet as and when necessary, and not less than once a year.

Each committee of the Board that exercises the powers of the Board must include at least one external director, except that the audit committee and the compensation committee must include all external directors then serving on the board of directors and an external director must serve as chair thereof.

Relationship Agreement

The Company has entered into a relationship agreement (the "Relationship Agreement") with the Parent Company and VSA to regulate aspects of the continuing relationship between the Company and the Parent Company, so as to ensure that the Company is capable at all times of carrying on its business independently of the Parent Company and that future transactions between the Company and the Parent Company are on arm's length terms and on a normal commercial basis.

The Parent Company undertakes to the Company and VSA that it will vote at all times in the manner required to ensure that the Company is capable of carrying on its business and making decisions independently of the Parent Company, and the independence of the Board is to be balanced and maintained at all times. Under the terms of the Relationship Agreement, the Parent Company shall be entitled to nominate and appoint up to three Directors from time to time.

The Relationship Agreement will terminate at any time when the aggregate voting rights attaching to the Parent Company's shareholdings represent less than 25 per cent. of all voting rights attributable to the issued share capital of the Company from time to time.

PART 5

SUMMARY OF ISRAELI LAW REQUIREMENTS

In accordance with Israeli Companies Law, the Company must always have at least two external directors. The external directors must meet certain statutory requirements of independence. The Company's external directors from Admission will be James AH Campbell, Michael Rosenberg and Nathalie Schwarz.

The term of office of an external director is three years, which can be extended terms. Under the Companies Law, external directors are elected by shareholders and approval of the election of an external director must satisfy either of two additional tests:

- The shares voted in favour of the election must include at least a majority of the shares voted by shareholders other than Controlling Shareholders or shareholders who have a personal interest in the election of the external director (excluding a personal interest that is not related to a relationship with the Controlling Shareholders); or
- The total number of shares held by non-Controlling Shareholders and shareholders without a personal interest in the election of the external director (excluding a personal interest that is not related to a relationship with the Controlling Shareholders) that voted against the election of the external director must not exceed 2% of the aggregate voting rights of the Company.

Subject to the provisions of the Companies Law, an external director can only be removed from office (without his consent) in one or more of the following circumstances:

1. by a competent court which, upon the application of the Company, a director, a shareholder or a creditor of the Company, orders termination of the office of that director because it has determined either that (a) he is permanently unable to fulfil his functions; or (b) during his appointment he has been found guilty in a court outside of Israel of bribery, deceit, an offence of a manager of a corporate body or an offence involving the misuse of inside information;
2. by a competent court which, upon the application of a director or shareholder of the Company, orders the termination of the office of that director because it has determined that he has ceased to fulfil one of the conditions required under the Companies Law for his appointment as an external director or that he has breached his fiduciary duty to the Company; and
3. by a shareholders' resolution passed by the same majority required for the appointment of an external director, provided that the Board has determined that either: (a) he no longer complies with the conditions set out by the Companies Law for the appointment of such a director; or (b) he has breached his fiduciary duty to the Company.

Any committee of the Board must include at least one external director except that the Audit Committee and Remuneration Committee must each include all of the external directors (including one external director serving as the chair of the Audit Committee and Remuneration Committee), and a majority of the members of each of the Audit Committee and Remuneration Committee must comply with the director independence requirements prescribed by the Companies Law.

Subject to certain exceptions under the Companies Regulations at least one of the external Directors must have "accounting and financial expertise" and any other external director must have "accounting and financial expertise" or a "professional qualification," as such terms are defined by regulations promulgated under the Companies Law.

The Audit Committee and the Remuneration Committee may not include the chairman of the Board, or any director employed by the Company, by a Controlling Shareholder or by any entity controlled by a Controlling Shareholder, or any director providing services to the Company, to a Controlling Shareholder or to any entity controlled by a Controlling Shareholder on a regular basis, or any director whose income is primarily dependent on a Controlling Shareholder, and may not include a Controlling Shareholder or any relatives of a Controlling Shareholder.

Individuals who are not permitted to be Audit Committee or Remuneration Committee members may not participate in the meeting of the committees, other than to present a particular issue. However, an employee who is not a Controlling Shareholder or relative may participate in the committee's discussions but not in any vote, and the Company's legal counsel and secretary may participate in the committee's discussions and attend the voting.

PART 6 THE SUBSCRIPTION

Description of the Subscription

Under the Subscription, 223,139 Shares have been conditionally subscribed for by Placees at the Subscription Price of 110 pence per Share, conditionally raising gross proceeds of approximately £0.25 million.

The Net Proceeds from the Subscription and the Converted Debt to the Company amount to approximately £3.39 million, after deduction of fees and expenses payable by the Company which are related to the Subscription and Admission.

The Subscription is conditional on Admission. If Admission does not proceed, the Subscription will not proceed and all monies paid will be refunded to the applicants.

In accordance with Listing Rule 14.3, at Admission at least 25 per cent. of the Shares will be in public hands (as defined in the Listing Rules).

The Subscription is being made by means of an offering of the Subscription Shares to certain investors in the United Kingdom and elsewhere in the EEA, as well as certain existing Shareholders. Such Shares will constitute 26.48 per cent. of the Enlarged Issued Share Capital.

The Directors have received irrevocable undertakings from potential investors to subscribe for and will be allocated 223,139 Subscription Shares in aggregate at the Subscription Price. The undertakings are unconditional and may not be withdrawn, other than on a failure by the Company to achieve Admission.

Use of proceeds

The anticipated Net Proceeds will be used in accordance to the Company's 18 month business plan. This will include the purchase of capital equipment, further drilling and bulk sampling and the completion of a pre-feasibility study to advance the Company's the Kishon Mid-Reach placer. The remaining proceeds will be applied to working capital and general corporate purposes.

The total amount of capital required to purchase mining equipment and to continue exploration activities at the Kishon Mid Reach excluding certain non-core costs, is estimated to be approximately NIS 4,630,000.

Use of funds (NIS'000)	2018	2019	Total (18 months)
Capital Expenditure	180	60	240
Kishon Mid-Reach			
Drilling	100		100
Bulk Sampling	200	200	400
Technical Salaries	960	480	1,440
Geological Consultants & Pre-Feasibility Study	350	110	460
Processing Site & Equipment	1,330	660	1990
TOTAL	3,120	1,510	4,630

Selling restrictions

The Shares have not been and will not be registered under the Securities Act or the securities laws of any state or other jurisdiction of the United States and may not be offered, sold, resold, transferred, delivered or distributed, directly or indirectly, within, into or in the United States except pursuant to an exemption from, or in a transaction that is not subject to, the registration requirements of the Securities Act and in compliance with the securities laws of any state or other jurisdiction of the United States.

Certain restrictions that apply to the distribution of this Document and the Subscription Shares being issued under the Subscription in certain jurisdictions are described in the section headed Part 13 - *Notices to Investors*. Certain selling and transfer restrictions are also contained in Part 13 - *Notices to Investors*.

Allocation

A number of factors will be considered in deciding the basis of allocation under the Subscription, including the level and nature of the demand for the Subscription Shares.

All Subscription Shares issued pursuant to the Subscription will be issued, payable in full, at the Subscription Price. The Shares issued pursuant to the Subscription will be issued in registered form. It is expected that the Shares will be issued pursuant to the Subscription on 18 December 2017.

Admission and Dealing arrangements

Application will be made to the UK Listing Authority for all the Shares to be listed on the standard segment of the Official List and application has been made to the London Stock Exchange for the Shares to be admitted to trading on the London Stock Exchange's main market for listed securities.

The expected date for settlement of such dealings will be 18 December 2017. All dealings between the commencement of conditional dealings and the commencement of unconditional dealings will be on a "when issued basis". If the Subscription does not become unconditional in all respects, any such dealings will be of no effect and any such dealings will be at the risk of the parties concerned.

It is expected that Admission will take place and unconditional dealings in the Subscription Shares will commence on the London Stock Exchange at 8.00 a.m. on 18 December 2017. This date and time may change.

CREST and Depositary Interests

The requirements of the Listing Rules provide that the Company must, upon Admission becoming effective, have a facility for the electronic settlement of the Shares. The shares of companies incorporated in England (and the shares of companies incorporated in certain other jurisdictions) which are quoted on the Main Market are settled through CREST, which is an electronic paperless share transfer and settlement system. The CREST system allows shares and other securities, (including Depositary Interests), to be held in electronic rather than paper form. However, with limited exceptions, only shares and other securities which are constituted under English law can be settled through the CREST system, regardless of the fact that they may be admitted to trading on the Main Market. As the Company is incorporated in Israel, its Shares are not eligible to be held through CREST and, accordingly, the Company has established, via the Depositary, a depositary interest programme.

The Depositary Interests representing the Shares will be issued to the individual Shareholder's CREST account on a one-for-one basis and with the Depositary providing the necessary custodial service. The Depositary Interests are themselves independent securities constituted under English law and can be traded and settled within the CREST system in the same way as any other CREST security. The Shareholders have the choice of whether to hold their Shares in certificated form or in uncertificated form in the form of Depositary Interests. Shareholders who elect to hold their Shares in uncertificated form through the Depositary Interest facility will be bound by a deed of trust.

The Company's share register, which will be kept by the Registrar, will show the Custodian as the holder of the Shares represented by Depositary Interests, but the beneficial interest will remain with the Shareholders who will continue to receive all the rights attaching to the Shares as they would have if they had themselves been entered on the Company's share register. Shareholders can withdraw their Shares back into certificated form at any time using standard CREST messages.

CREST is a voluntary system and holders of Shares who wish to receive and retain share certificates will be able to do so. It is expected that, where Placees have asked to hold their Shares in uncertificated form, they will have their CREST accounts credited with Depositary Interests on the day of Admission. Where Placees have requested to receive their Shares in certificated form, share certificates will be despatched by first-class post within ten days of the date of Admission. No temporary documents of title will be issued. Pending the receipt of definitive share certificates in

respect of the Subscription Shares (other than in respect of those Subscription Shares settled via Depositary Interests through CREST), transfers will be certified against the Company's share register.

The ISIN number of the Shares is IL0011101057. The TIDM is SEFA.

Further information on the Depositary Interest arrangements are set out in Part 10 – '*Crest and Depositary Interests*'.

PART 7

SHARE CAPITAL AND CAPITALISATION

Share capital

Details of the issued share capital of the Company as at the date of this Document are set out in paragraph 3 of Part 12 – ‘*Additional Information*’ of this Document. Immediately following Admission the Company will have issued 223,139 Subscription Shares and 4,294,317 Converted Debt Shares. The Enlarged Issued Share Capital is expected to be 13,905,056 Shares.

All of the issued Shares will be in registered form, and capable of being held in certificated or uncertificated form. The Registrar will be responsible for maintaining the share register. Temporary documents of title will not be issued. The ISIN number of the Shares is IL0011101057. The SEDOL number of the Shares is B2QF5R4.

Converted Debt Shares

The Company's Converted Debt Shares consist of an aggregate of 3,973,461 Shares issued in relation to the Convertible Loans of approximately £3.6 million and 320,856 Shares issued in relation to the Related Party Debt of approximately £0.3 million, as set out below.

Convertible Loans

- Convertible loans of NIS 584,000 (US\$ 160,000) see Note 3b of Part 9 – ‘*Unaudited Interim Accounts*’, are to be converted into 138,411 Shares in the Company at a 15% discount to the Subscription Price on Admission.
- Convertible loans of NIS 15,914,000 (US\$ 4,552,000) see Note 3c of Part 9 – ‘*Unaudited Interim Accounts*’, are to be converted into 3,835,050 Shares in the Company at a 15% discount to the Subscription Price on Admission

Related Party Debt

- A debt amount of NIS 1,365,000 (US\$ 390,000) in relation to services provided by related parties to the Company, see Note 3d of Part 9 – ‘*Unaudited Interim Accounts*’ is to be converted into 320,856 Shares at the Subscription Price on Admission.

In addition, in relation to the sums owed to Mr. Shimon Hibloom for past services provided by him to the Company in the amount of NIS 640,000, see Note 18b of Part 8 – ‘*Historical Financial Information*’, the full liability is transferred to the Parent Company with the amount debited from the Parent Company's Debt Liability. The effect will be an increase in the Company's shareholder equity account. As at Admission the Parent Company Debt Liability will be NIS 258,725,000

Warrants

Converted Debt Share Warrants

On Admission the Company will issue:

- 138,411 warrants in relation to convertible loans of NIS 584,000 (US\$ 160,000), see Note 3b of Part 9 – ‘*Unaudited Interim Accounts*’
- 2,255,427 warrants in relation to convertible loans of NIS 3,110,000 (US\$ 890,000), see Note 3c of Part 9 – ‘*Unaudited Interim Accounts*’
- 2,945,398 warrants in relation to a convertible loan of NIS 12,236,000 (US\$ 3,500,000), see Note 3c of Part 9 – ‘*Unaudited Interim Accounts*’
- 137,843 warrants in relation to convertible loans of NIS 566,000 (US\$ 162,000), see Note 3c of Part 9 – ‘*Unaudited Interim Accounts*’
- 962,568 warrants in relation to the related party debt of NIS 1,365,000 (US\$ 390,000) see Note 3d of Part 9 – ‘*Unaudited Interim Accounts*’

Capitalisation and indebtedness

The following table shows the Company's capitalisation as at 31 October 2017

	Unaudited NIS'000
Total Current Debt	
Guaranteed	37
Secured	-
Unguaranteed/Unsecured	13,513
Total Non-Current Debt	
Guaranteed	-
Secured	-
Unguaranteed/Unsecured	779
Shareholder Equity	
Share Capital	9,387
Reserves	91,189
Total	114,905

The following table shows the Company's net financial indebtedness as at 31 October 2017:

	Unaudited NIS'000
A. Cash	6,756
B. Cash equivalent	-
C. Trading securities	-
D. Liquidity (A) + (B) + (C)	6,756
E. Current financial receivable	-
F. Current bank debt	(37)
G. Current portion of non-current debt	(92)
H. Other current financial debt	(16,982)
I. Current Financial Debt (F) + (G) + (H)	(17,111)
J. Net Current Financial Indebtedness (I) - (E) - (D)	(10,355)
K. Non-current Bank loans	-
L. Bonds Issued	-
M. Other non-current loans	(779)
N. Non-current Financial Indebtedness (K) + (L) + (M)	(779)
O. Net Financial Indebtedness (J) + (N)	(11,134)

Hedging arrangements and risk management

The Company may use forward contracts, options, swaps, caps, collars and floors or other strategies or forms of derivative instruments to limit its exposure to changes in the relative values of investments that may result from market developments, including changes in prevailing interest rates and currency exchange rates, as previously described. It is expected that the extent of risk management activities by the Company will vary based on the level of exposure and consideration of risk across the business.

The success of any hedging or other derivative transaction generally will depend on the Company's ability to correctly predict market changes. As a result, while the Company may enter into such a transaction to reduce exposure to market risks, unanticipated market changes may result in poorer overall investment performance than if the transaction had not been executed. In addition, the degree

of correlation between price movements of the instruments used in connection with hedging activities and price movements in a position being hedged may vary. Moreover, for a variety of reasons, the Company may not seek, or be successful in establishing, an exact correlation between the instruments used in a hedging or other derivative transactions and the position being hedged and could create new risks of loss. In addition, it may not be possible to fully or perfectly limit the Company's exposure against all changes in the values of its assets, because the values of its assets are likely to fluctuate as a result of a number of factors, some of which will be beyond the Company's control.

PART 8
HISTORICAL FINANCIAL INFORMATION OF THE COMPANY

Accountant's Report



Jerusalem, 12 December 2017

The Directors
Shefa Yamim (A.T.M.) Ltd
90 Herzl Street
P.O.Box 720
Netanya - 4210602
Israel

Dear Sirs

We report on the financial information of Shefa Yamim (A.T.M.) Ltd. (hereinafter - "the Company") for the periods ended December 31, 2016, 2015 and 2014. This financial information has been prepared for inclusion in the Prospectus of the Company dated 12 December 2017 on the basis of the accounting policies set out in Note 3 of the financial information. This report is required by Paragraph 20.1 of Annex 1 to the Commission Regulation (EC) No. 809/2004 (the "PD Regulation") of the Prospectus Directive Regulation and is given for the purpose of complying with that Paragraph and for no other purpose.

Responsibilities

The directors of the Company are responsible for preparing the financial information in accordance with the International Financial Reporting Standards ("IFRS") as adopted by the European Union.

It is our responsibility to form an opinion as to whether the financial information gives a true and fair view, for the purpose of the Prospectus, and to report our opinion to you.

Save for any responsibility arising under Prospectus Rule 5.5.3R(2)(f) to any person as and to the extent there provided, to the fullest extent permitted by law we do not assume any responsibility and will not accept any liability to any other person for any loss suffered by any such other person as a result of, arising out of, or in connection with this report or our statement, required by and given solely for the purposes of complying with Item 23.1 of Annex 1 to the Prospectus Directive, consenting to its inclusion in the Prospectus.

Basis of opinion

We conducted our work in accordance with Standards for Investment Reporting issued by the Auditing Practices Board of the United Kingdom. Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. It also included an assessment of significant estimates and judgments made by those responsible for the preparation of the financial information and whether the accounting policies are appropriate to the entity's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial information is free from material misstatement whether caused by fraud or other irregularity or error.

Our work has not been carried out in accordance with the auditing or other standards and practices generally accepted in other jurisdictions and accordingly should not be relied upon as if it has been carried out in accordance with those standards and practices.

Opinion on the financial information

In our opinion, the financial information set out in the Prospectus gives, for the purpose of the Prospectus, a true and fair view of the state of affairs of the Company as at financial years ended December 31, 2016, 2015 and 2014, of its results, cash flows and changes in its shareholders' equity for the years then ended in accordance with the basis of preparation set out in Note 2 of the financial information.

Declaration

For the purposes of Prospectus Rule 5.5.3R(2)(f), we are responsible for this report as part of the Prospectus and declare that we have taken all reasonable care to ensure that the information contained in this report is, to the best of our knowledge, in accordance with the facts and contains no omission likely to affect its import. This declaration is included in the Prospectus with item 1.2 of Annex 1 to the Prospectus Directive.

Barzily & Co.
Certified Public Accountants
A Member of MSI Worldwide

SECTION B: HISTORICAL FINANCIAL INFORMATION OF THE COMPANY.

Statements of Financial Position as of 31 December 2016, 2015, 2014

NIS '000	Note	December 31,		2014
		2016	2015	
Non-Current Assets:				
Fixed assets	6	1,946	2,240	995
Loan to the parent company	7	1,116	1,076	1,037
Interested party		77	77	77
Assets for exploration and evaluation of precious stones	8	51,500	46,511	42,975
Deferred issuance expenses		905	56	- . -
Total non-current assets		55,544	49,960	45,084
Current Assets:				
Cash and cash equivalents		1	1	1
Deposit in bank	4	192	195	194
Receivables	5	288	114	54
Total current assets		481	310	249
Total Assets		56,025	50,270	45,333
Shareholders' Equity	16	48,820	45,700	40,921
Non-current Liabilities:				
Long-term loans from interested party and others	14	778	1,018	914
Finance lease	15	91	131	- . -
Liability for severance pay	3i	120	177	170
Total Non-current Liabilities		989	1,326	1,084
Current Liabilities:				
Short-term credit from bank and others	9	696	517	809
Trade payables	10	649	504	290
Interested parties	11	2,308	1,225	1,286
Other accounts payable	12	1,835	998	943
Loans convertible to shares	13	728	- . -	- . -
Total current liabilities		6,216	3,244	3,328
Total Shareholders' Equity and Liabilities		56,025	50,270	45,333

Statements of Comprehensive Income for the Year Ended 31 December 2016, 2015, 2014

NIS'000 (except for per share losses)	Note	For the Year Ended December 31,		
		2016	2015	2014
Costs and expenses -				
General and administrative expenses		(914)	(1,028)	(1,199)
Capital gain		178	37	- . -
Operating loss		(736)	(991)	(1,199)
Financial expenses		(383)	(153)	(191)
Financial income		570	834	756
Financial income, net		187	681	565
Loss for the year and comprehensive loss attributed to the Company shareholders		<u>(549)</u>	<u>(310)</u>	<u>(634)</u>
Basic and diluted loss per share (in NIS) attributed to the Company shareholders	20	<u>(0.058)</u>	<u>(0.033)</u>	<u>(0.068)</u>

Statements of Changes in Equity for the Year Ended 31 December 2016, 2015, 2014

NIS'000

	Share Capital	Additional Paid-in Capital	Receivables on Account of Shares Issued	Capital Reserve for Share- based Payments	Capital Reserve from Transactions with Interested Party	Accumulated Deficit	Total Shareholders' Equity
Balance as of January 1, 2014	9,387	65,168	(701)	4,416	6,312	(49,303)	35,279
Comprehensive Loss for the year	- . -	- . -	- . -	- . -	- . -	(634)	(634)
Receipts for issue of shares during 2012 *	- . -	5,575	701	- . -	- . -	-	6,276
Balance as of December 31, 2014	9,387	70,743	- . -	4,416	6,312	(49,937)	40,921
Comprehensive Loss for the year	- . -	- . -	- . -	- . -	- . -	(310)	(310)
Receipts for issue of shares during 2012 *	- . -	5,089	- . -	- . -	- . -	-	5,089
Balance as of December 31, 2015	9,387	75,832	- . -	4,416	6,312	(50,247)	45,700
Comprehensive Loss for the year	- . -	- . -	- . -	- . -	- . -	(549)	(549)
Share based compensation	- . -	- . -	- . -	875	- . -	- . -	875
Receipts for issue of shares during 2012 *	- . -	2,794	- . -	- . -	- . -	- . -	2,794
Balance as of December 31, 2016	9,387	78,626	- . -	5,291	6,312	(50,796)	48,820

Statements of Cash Flows for the Year Ended 31 December 2016, 2015, 2014

NIS'000

For the Year Ended December 31,

	2016	2015	2014
Cash flows from operating activities:			
Loss for the year	(549)	(310)	(634)
Appendix A - Adjustments required to reconcile loss for the year to net cash used in operating activities	(151)	(503)	(792)
Net cash used in operating activities	(700)	(813)	(1,426)
Cash flows from investing activities:			
Purchase of fixed assets	(305)	(1,346)	(160)
Consideration from sale of fixed assets	180	91	- . -
Investment in exploration and evaluation assets	(2,638)	(3,233)	(4,003)
Loan rendered to parent company	- . -	- . -	(1,000)
Interest received	530	* 794	* 720
Net cash used in investing activities	(2,233)	(3,694)	(4,443)
Cash flows from financing activities:			
Consideration received for issuance of share capital (including additional capital)	2,794	4,680	6,276
Increase in deferred issuance expenses	(239)	(56)	- . -
Receipt (Repayment) of credits from banks and others, net	168	(51)	(46)
Repayment of loans from interested parties, net	(101)	(95)	(101)
Receipt of loans convertible to shares	504	- . -	- . -
Receipt of long-term loans	- . -	200	- . -
Repayment of long-term loans	(46)	(70)	(145)
Interest paid	(157)	* (101)	* (113)
Net cash provided by financing activities	2,923	4,507	5,871
Linkage differences in regard to cash and cash equivalents	10	- . -	(2)
Increase in cash and cash equivalents	- . -	- . -	- . -
Cash and cash equivalents at the beginning of the year	1	1	1
Cash and cash equivalents at the end of the year	1	1	1

*Reclassified

Notes to Financial Information

1 General

- a. Shefa Yamim (A.T.M.) Ltd. (hereinafter – “the Company”) is an Israeli company. The Company is a subsidiary of Shefa Yamim Ltd. (hereinafter – the “Parent Company”) that, as of December 31, 2016, owns 75% of the shares of the Company. The Parent Company is a public company whose securities are registered for trade on the Tel Aviv Stock Exchange.
- b. The Company engages in prospecting and exploration for diamonds, precious stones and gold (“precious stones”) along the length of the Nahal Kishon riverbed in the Zevulun Valley, in Emek Yizrael, on designated slopes of Mount Carmel and in the Ramot Menashe and Migdal Haemek areas based on prospecting and exploration permits received from the Superintendent of Mining in the Office of National Infrastructure of the Government of Israel, in accordance with the Mines Ordinance.

Proximate to date of approval of the financial statements, the Company continues to conduct prospecting and explorations in accordance with current valid permits granted for an inclusive area of approximately 614 thousand dunam (0614 square meters).

The Company's goal is finding precious stones in the existing permitted areas and/or future areas in sufficient quantities to obtain exclusive mining rights and/or a mining contract. In the event of positive exploration and prospecting results, the Company will receive a “Discovery Certificate” and will be eligible to receive an exclusive mining license from the Government of Israel regarding diamonds, gold and precious stones.

- c. In April 2012, the Company allocated to the Parent Company an amount of 7,040,700 Ordinary shares so that, subsequent to the allocation, the Parent Company holds 75% of the issued and outstanding Company shares (fully diluted). In regard to this allocation, The Company is entitled to payment of NIS 280 million (hereinafter: “the debt”). Amount of the debt is linked to the Consumer Price Index and bears interest of 4% per annum. The debt will be paid exclusively from future Parent Company mobilizations of capital, with the Company entitled to 85% of any future mobilized capital (net after expenses) until repayment of the entire debt. Until December 31, 2016, the Company received NIS 22,948 thousand (including NIS 2,450 thousand in interest) from mobilizations of capital. See Note 16. In the event that future mobilizations of capital will not complete repayment of the debt, this does not constitute grounds for nullification of the agreement or a change in its terms and the Company will have no recourse to collect from the Parent Company in any other manner. In view of the uncertainties in regard to the future mobilizations of capital of the Parent Company, the Company recorded the proceeds from the abovementioned issue in accordance with actual mobilizations of the Parent Company.

2 Basis of Preparation of the Financial Statements

a. Declaration in regard to Initial implementation of International Financial Reporting Standards (IFRS)

The Company's financial statements were prepared in accordance with International Financial Reporting Standards (hereinafter – “IFRS”) and related clarifications published by the International Accounting Standards Board (“IASB”).

The significant accounting principles detailed below were consistently implemented for all reporting periods presented in these financial statements except for changes in the accounting policies that derive from application of Standards, amendments to Standards and clarifications that became effective at the date of the financial statements.

The financial statements were approved by the board of directors on March 30, 2017.

b. Functional Currency and Presentation Currency

The financial statements are presented in New Israel Shekels (NIS) that is the functional currency of the Company, and are rounded to the nearest thousand. The Shekel is the currency of the main economic environment wherein the Company operates.

c. Basis for preparation of financial statements

These financial statements are prepared on the basis of historical cost. The statement of comprehensive loss was included according to characteristics of operations.

Value of non-cash assets and detail of share capital measured on the basis of historical cost, were adjusted to changes in the Consumer Price Index until December 31, 2003 since until that date the Israeli economy was considered to be hyper-inflationary

d. The operating turnover cycle

The ordinary operating turnover cycle for the Company is one year. The assets and liabilities attributed to this operation and that are intended to be realized during the operating period are shown in the framework of current assets and current liabilities

e. Foreign currency and linkage basis

Balances stated in foreign currency are translated into the functional currency of the Company at dates of transactions, using the representative exchange rate. Financial assets and liabilities designated in foreign currency at reported date have been included in the financial statements according to the prevailing representative exchange rates as published by the Bank of Israel at the balance sheet date. Non-monetary items designated in foreign currency and measured at fair value are translated into the functional currency at the exchange rate prevailing when the fair value was determined. Non-monetary items measured at cost are translated into the effective exchange rate at transaction date for the non-monetary item.

Detail in regard to the Consumer Price Index and the exchange rate of the U.S. dollar

	December 31,		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
CPI in points (applicable) *	122.84	123.09	124.32
CPI in points (known) *	122.84	123.21	124.32
Exchange Rate of U.S. \$ in NIS	3.845	3.902	3.889
Exchange Rate of British £ in NIS	4.725	5.784	6.064

* Base Index 2002 = 100.

	Year ended December 31,		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Change in CPI (applicable)	(0.20%)	(1.00%)	(0.20%)
Change in CPI (known)	(0.30%)	(0.90%)	(0.10%)
Change in rate of exchange- U.S. \$	(1.46%)	0.33%	12.04%
Change in rate of exchange- Brit. £	(18.31%)	(4.62%)	5.60%

f. Critical accounting decisions

Implementation of accounting policies adopted by the Company requires Company management, in certain instances, to implement broad accounting decisions (as opposed to accounting decisions that related to determination of estimates and valuations as detailed in Section g. below). This broad decision relates mainly to adoption of the accounting principle most suitable to the circumstances, or rendering of an acceptable interpretation under circumstances where the accounting regulation does not render a full or clear response for the specific circumstances. A critical accounting decision is such that the results may have a significant effect on the financial situation and results of operations of the Company as reflected in the financial statements and with other basic assumptions could lead to an accounting result significantly different than the one presented therein. By its nature, an accounting decision as such is partially subjective. Concurrently, by implementing a critical accounting decision, Company management bases its conclusion on understanding of the accounting principles for implementation of its operations and, where relevant, the Company consults with external experts in the relevant field

g. Essential estimates and uncertainties

Upon preparation of the financial statements, Company management is required to utilize estimates or valuations in regard to transactions or matters whose final effect on the financial statements cannot be accurately determined at the time. The main basis for determination of the quantitative value of these estimates is assumptions adopted by Company management, taking into account the circumstances for the estimate, as well as the best of knowledge available at the time. It is natural, since these estimates and valuations are a result of decisions during uncertainty, that during significant moments, changes in the basic assumptions derived from changes that are not absolutely dependent on Company management, as well as additional information at a future date that was unavailable to the Company management at the time when the estimate was formulated, will result in changes in the quantitative value of the estimate. Thus, this will also influence the financial position of the Company and the results of its operation

Therefore, though these estimates and valuations were concluded using the best of knowledge available to management, based on past experience and taking into account the singular circumstances, and, where relevant, reliance on external consultants, the final quantitative effect of transactions or circumstances requiring estimate can only be clarified when these transactions or circumstances reach their conclusions. Therefore, the actual results, upon final clarification of the results for an event that requires determination of estimates and valuations, may differ, sometimes significantly, from estimates and valuations that were determined initially and are updated over the period of the related events

The basic estimates and assumptions are currently examined, and updated upon management receiving information or upon an event occurring subsequent to the final date when the estimate was determined and that were not available to management during the prior period when the estimate was determined, or examined. Changes in accounting estimates are charged during the period when the estimate is changed, or during future periods subsequent to when the change occurred if there are implications for the change to have an effect on the current and on future periods

3 Significant Accounting Policies

a. Cash and Cash Equivalents

Cash and cash equivalents include highly liquid investments that are immediately realizable. This includes short-term bank deposits for immediate withdrawal and deposits with maturities of three months or less that are not limited in any way and no charges are placed thereon.

Deposits that are limited or that their maturity dates are in excess of three months but not in excess of one year are classified as deposits in the current assets section of the statements of financial position.

b. Fixed Assets

Fixed assets are stated at cost net of accumulated depreciation and any losses in value that may have occurred.

The cost includes acquisition cost of the fixed assets as well as all costs that can be attributed directly to bringing the asset to its place and to its current situation that are necessary to operate using the methodology intended by management.

Vehicles purchased under financial lease agreements and utilized for field work are presented at cost computed by estimated capitalization of the leasing costs in accordance with the leasing agreement.

Depreciation included in the statement of operations is calculated using the straight-line method over the estimated useful lives of the assets, at the following annual rates:

	%
Office furniture and equipment	6-15
Laboratory machinery and equipment	10-15
Leasehold improvements – Establishment of a Laboratory	10
Vehicles	15
Computers	33

Depreciation expense for vehicles and equipment used during explorations are charged to cost of assets for exploration and valuation of precious stones. Profit or loss arising from sale or decrement of a fixed asset item is determined as the difference between receipts from its sale and its book value at decrement date, and is charged to operations

c. Assets for Prospecting and Evaluation of Precious Stones

1. The Company has adopted the "Successful Efforts Method" in regard to the accounting treatment of expenses incurred in exploration, mining and extraction of precious stones. In accordance with this Method
 - a) Expenses for participation in geologic tests and scans that occur prior to the exploration and valuation stage and prior to receiving a permit are charged immediately to the statements of comprehensive loss when incurred.
 - b) Investments in explorations for precious stones during the exploration and valuation stages, relating to areas that it is as yet unproven whether they will indeed yield precious stones or are unprofitable are shown in the statements of financial position at cost, as exploration and valuation assets that are stated as tangible or intangible assets in accordance with the essence of the asset. These investments include, *inter alia*, costs incurred for performance of geological research, drilling costs, operations relating to evaluation of technical ability for commercial existence of resources to be yielded as well as general and administrative costs (mainly to a related company) for direct costs for mining and extraction assets
 - c) Investments in prospecting for precious stones that have an existing technical plan and the resource with a commercial existence will be restated and included as "investments in precious stones." Prior to their restatement, these items will be examined for decrease in value. In the event that a loss has been created, this will be recognized and included in the statements of comprehensive loss. Investments in precious stones are amortized in the statements of comprehensive loss on the basis of amounts extracted in relation to total reserves for the precious stones asset, as valued by an external assessor with expertise in this area
 - d) Prospecting and evaluation assets will be examined for decrease in value when events and occurrences would lead one to believe that their book value exceeds their attributed realization value. Such events and occurrences include, *inter alia*: expiration of exploration rights in a specified area or predictions that these rights will expire in the near future and renewal is not foreseen; prospecting for precious stones in a specific area have not resulted in proven commercial quantities of reserves of precious stones. In the event that there are signs of a reduction in value, as abovementioned, the realization value is estimated for the asset in accordance with IAS 36 (see Section 3e)
2. "Assets for Investments in Precious Stone" in the statements of financial information will include, also, accumulated costs for development of infrastructures for the necessary bases in order to yield resources. These costs are capitalized and can include headquarters costs that are directly attributable to establishment of the assets and other direct overhead costs. They are shown in the statements of financial information at cost and are amortized in the statements of comprehensive loss on the basis of quantity yielded in proportion to total proven reserves as evaluated by an external expert assessor, as stated in 1c abovementioned
3. Investments in precious stones that have an existing technical plan are examined at each reporting period for any signs of a reduction in value. In the event that such signs exist, the realization value is computed in accordance with IAS 36 (see Sect. 3e)
4. The Company will recognize the liability and, correspondingly, the asset in regard to obligation of the Company to disassemble, clear and rehabilitate the site where the asset was established. The liability is initially measured at its present value and the expenses derived from its increase are depreciated over a period of time in the statement of comprehensive loss. The asset is initially measured at its present value and is depreciated over a period of time in the statement of comprehensive loss in accordance with the useful life of the removed asset. Changes in timing and in the amount of the economic resources that are necessary for the removal of the liability as well as the change in the capitalization rate are added to or deducted from the asset during the current period corresponding to a change in the liability. Changes in the obligation to disassemble and clear items and rehabilitation of the site where they were established, except for changes

deriving from timing, are added to or deducted from the asset cost during the period when incurred. The amount deducted from the asset cost will not exceed the book value of the asset and the balance, if any, is immediately recognized in the statements of comprehensive loss.

The Company examines its projected obligations to rehabilitate and renew excavation sites and includes a provision, when necessary, in accordance with the current value of projected costs

d. Expenses incurred in regard to issue of shares

Expenses for mobilization of capital, directly attributed to issue of shares, were deducted from the additional paid-in capital received from the issue of shares. Expenses for mobilization of capital that are not directly related to issue of shares were included in the statement of comprehensive loss.

e. Impairment in value of assets

At the close of every reporting period, the Company examines the book value of its tangible assets to determine any signs of loss from impairment in value of these assets. In the event that there are signs of impairment, the Company examines the realization value of the designated asset in order to determine the loss from impairment, if any

The realization value is the higher of net fair value of the asset as compared with its useful life that is determined by the present value of projected cash flows to be realized from this asset using a rate prior to taxes that reflects the present book value of the time span for the money and the specific risks for the asset that the estimated future cash flows were not adjusted in this regard.

In the event that the book value of the asset or cash-yielding unit is greater than its realization value, a devaluation of the asset has occurred in the amount of the difference between its book value and its realization value. This amount is recognized immediately in the statements of comprehensive loss.

Prior devaluation of an asset is nullified, partially or completely, only when changes in the determinants of realization value of the asset have occurred. In the event of such an occurrence, the book value of the asset is increased to the estimated current fair value, but not in excess of the asset book value that would have existed had there not been devaluation and subsequent to deduction of any relevant depreciation. Such nullification is recognized immediately in the statements of comprehensive loss

f. Financial instruments

Non-derivative financial instruments

Non-derivative financial instruments comprise various accounts receivable and cash and cash equivalents.

Non-derivative financial instruments are recognized initially on the trade date at which the Group becomes a party to the contractual provisions allowing the Group to receive the financial instrument. Investments in these instruments are initially presented at their fair value with the addition of transaction costs.

The Company classifies its financial assets as loans and receivables. This classification is determined in accordance with the purpose for holding the financial asset, when initial recognition of the financial asset occurs.

Loss from impairment in value and write-off of non-derivative financial instruments

Financial instruments not classified at fair value through profit and loss are examined at each reporting period as to whether there are signs of impairment in value. Impairment occurs when there is objective evidence that as a result of a specific incident or occurrences, occurring subsequent to initial recognition date of the financial asset, a negative effect exists on the projected cash flows for the investment in this asset

In regard to financial assets that are included at amortized cost (mainly loans and receivables), the amount of impairment in value is the difference between the book value of the financial asset and the present value of the estimated future cash flows projected to derive from the asset, discounted at the original effective interest rate for the asset. This amount is charged to the statement of comprehensive loss.

In the event that during a parallel period to that when a loss was recorded for impairment in value for a financial asset included at amortized cost there are indications that the amount of the loss from impairment in value is less and is objectively related to an event occurring subsequent to recognition

of the impairment, then the prior impairment loss will be written off, in part or completely, to profit and loss. The amount written off is limited so that the book value of the investment in the financial asset at the time of write-off of the loss from impairment in value does not exceed the amortized cost of the asset at the cancellation date had there not been a prior recognition of impairment in value.

Non-derivative financial liabilities

The Company initially recognizes debt securities issued on the date that they are originated. All other financial liabilities (including financial liabilities designated at fair value through profit and loss) are recognized initially on the trade date at which the Company becomes a party to the contractual provisions of the instrument.

Financial liabilities are reduced when the obligation of the Company, as specified in the agreement, expires or when it is discharged or written off.

Financial obligations are initially recognized in accordance with their fair value and transaction costs that can be attributed. Subsequent measurement of financial liabilities is mainly on the basis of amortized cost using the effective interest method.

The Company has the following non-derivative financial liabilities: loans and credit from banks and others, and trade and other payables.

Financial assets and liabilities are offset and the net amount presented in the statement of financial position when the Company currently has a legal right to offset the amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

g. Leases

The criteria for determining whether leases are financial or operating are based on the essence of the agreements, examined at the time when contracted in accordance with the regulations determined in IAS 17. Leases that transfer all risks and benefits contained in ownership of the leased property are classified as financial leases. Other leases are classified as operating leases and leasing payments are recognized as an expense in the statements of comprehensive loss and are prorated currently using the straight line method over the lease period. Financial lease payments are divided between financing expense and amortization of the remaining liability.

h. Provision

Provisions are recognized when the Company has a current obligation (legal or derived) as a result of a past occurrence that can be reliably measured, that will in all probability result in the Company being required to provide additional benefits in order to settle this obligation. The amount recognized as a provision reflects the best estimate by management of the amount that will be required to settle the obligation currently at financial statements date, while taking into account the risks and uncertainties related to obligations. When provisions are determined by capitalization of projected cash flows in order to settle the obligation, the provision is the current value of the projected cash flows. Changes in projected time periods are charged to comprehensive income or loss. When the entire sum or a portion thereof necessary for current settlement of the liability will likely be repaid by a third party, the Company recognizes an asset, for the return, up to the amount of the recognized provision, only when there is virtual certainty that the amount will be received and it can be reliably estimated.

i. Liability in regard to employee benefits

Short-term employee benefits

Short-term employee benefits include salaries, vacation days, recreation and employer deposits to the National Insurance Institute that are recognized as expenses when rendered. A liability for a cash bonus or a plan for participation in Company earnings is recognized when the Company has a legal or derived responsibility for payment of the amount or is intending to pay the amount for services rendered in the past by the employee and the amount can be reliably measured.

Benefits upon retirement

These plans generally are funded by deposits to insurance companies and pension funds and are classified as restricted deposit plans or as restricted benefits.

Some Company employees have restricted deposit plans, in accordance with Section 14 of the Severance Pay Law, whereby the Company pays fixed amounts without bearing any legal or derived responsibility to pay additional amounts thereto even if the fund did not accumulate enough amounts.

to pay the entire benefit amount to the employee that relates to the services he rendered during the current and prior periods. Deposits to the restricted plan are classified for benefits or for compensation, and are recognized as an expense upon deposit to the plan concurrent with receiving services from the employee and no additional provision is required in the financial statements.

Concurrently, the Company operates a restricted benefit plan for severance pay as required by the Severance Pay Law. In accordance with the Severance Pay Law, employees are entitled to compensation upon retirement or upon termination of their employment.

The financial statements include a provision in the amount of the difference that the Company would be required to pay in the event that the employees would be entitled to severance pay at balance sheet date. No actuarial computations of possible obligation and actual value of deposits with the restricted benefits plan were made since, in the opinion of Company management, such computation would not have a material effect on the Company's financial statements.

j. Financial income and expenses

Financial income includes interest in regard to invested amounts, revenues from exchange rate differences that are recognized in the statements of comprehensive loss and interest income that is recognized upon accumulation, using the effective interest method.

Financial expenses include interest on loans received and changes in the time estimates of provisions.

Gains and losses from exchange rate differences are reported net. Costs of credit are recognized as an expense during the period of their inception, in accordance with the effective interest methodology.

k. Deferred Taxes

The Company creates deferred taxes in regard to temporary differences of value for tax purposes of assets and liabilities and their value in the financial statements. These deferred tax balances (asset or liability) are computed according to the projected tax rates occurring upon realization, based on tax rates and regulations in force or legislated fully at the date of the statements of financial position. Deferred tax liabilities are recognized, generally, for all temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.

A deferred tax asset is recognized on the books for carryforward losses, tax benefits and temporary differences that are deductible to the extent that it is probable that future taxable profit will be available against which the temporary differences can be offset. Deferred tax assets are reviewed at every reporting date and, in the event that the related tax benefits will not be utilized, they are deducted.

In the absence of certainty regarding taxable income in the future, there was no recording of a tax deferred asset in regard to carryforward losses on the Company books of account.

l. Statement of cash flows

The statement of cash flows from current operations is presented using the indirect method, whereby interest amounts paid and received by the Company are included in the cash flows in the framework of finance operations.

m. Loss per Share

The Company computes the basic revenue or loss per share in regard to gain or loss, that is attributed to the Company shareholders by dividing the income or loss, attributable to ordinary shareholders of the Company, by the weighted average of ordinary shares that exist in the turnover during the reported period. The Company does not have any securities that are convertible to shares that would have a potential effect on the diluted income per share

n. Disclosure in regard to new IFRS Standards in the period prior to implementation

IFRS 9 "Financial Instruments" (hereinafter: "the Standard")

In accordance with the Standard, there are three main categories for measurement of financial assets: amortized cost, fair value through profit and loss and fair value through other comprehensive income. Determination of the measurement design in regard to debt instruments will be based on the business model of the entity as related to management of financial assets and in accordance with the characteristics of the projected cash flows that derive from those financial assets. An investment in

capital instruments will be measured by fair value through profit and loss (unless the Company chose, during initial recognition, to present the changes in fair value in the other comprehensive income).

The Standard presents a new model for recognition of Expected Credit Loss. For most of the assets, the new model presents a dual measurement approach for impairment in value. If the credit risk attributable to the financial asset did not significantly rise since initial recognition, a provision for loss will be recorded at the amount of projected credit loss in regard to events of failure that may occur during a period of twelve months subsequent to the reporting date. In the event that the credit risk rose significantly, then in most of the instances, the provision for impairment in value will increase and will be recorded at the level of expected credit losses that will occur over the life of the financial asset.

The Standard will be implemented for annual periods that commence on January 1, 2018 with the possibility of early adoption. The Standard will be applied retroactively except for several exceptions.

The Company has not as yet examined the implications of the Standard's application on the financial statements.

4 Deposit in Bank

A short-term deposit in foreign currency, bearing interest at 0.03% (December 31, 2015 – 0%). See also Note 9b.

5 Receivables

NIS'000

	December 31,		
	2016	2015	2014
Prepaid expenses	18	68	54
Advances to suppliers and others	270	46	- . -
	<u>288</u>	<u>114</u>	<u>54</u>

6 Fixed Assets

NIS'000

	Machines and Laboratory Equipment *	Vehicles **	Office Furniture and Equipment	Computers	Leasehold Improvements - Laboratory	Total
Cost:						
As of January 1, 2014	1,702	595	313	328	431	3,369
Additions	127	6	13	9	5	160
As of December 31, 2014	1,829	601	326	337	436	3,529
Additions	1,297	306	4	5	- . -	1,612
Decrements	(38)	(308)	- . -	- . -	- . -	(346)
As of December 31, 2015	3,088	599	330	342	436	4,795
Additions	157	- . -	8	11	- . -	176
Decrements	(317)	(247)	- . -	- . -	- . -	(564)
As of December 31, 2016	<u>2,928</u>	<u>352</u>	<u>338</u>	<u>353</u>	<u>436</u>	<u>4,407</u>
Accumulated Depreciation:						
As of January 1, 2014	1,128	409	231	266	157	2,191
Depreciation for the year	165	88	22	31	37	343
As of December 31, 2015	1,293	497	253	297	194	2,534
	158	67	22	28	38	313
Depreciation for the year						
Decrements	(38)	(254)	-	-	-	(292)
As of December 31, 2015	1,413	310	275	325	232	2,555
Depreciation for the year	345	51	20	14	38	468
Decrements	(317)	(245)	- . -	- . -	- . -	(562)

As of December 31, 2016	1,441	116	295	339	270	2,461
Depreciated Cost:						
As of December 31, 2016	1,487	236	43	14	166	1,946
As of December 31, 2015	1,675	289	55	17	204	2,240
As of December 31, 2014	536	104	73	40	242	995

* In regard to equipment with liens, see Note 19b4.

** Includes a vehicle that was given to the Company under financial leasing terms and a lien in favour of the leasing company was placed on the vehicle as part of the leasing terms.

7 Loan to the Parent Company

A loan that is linked to the Consumer Price Index and bears annual interest at the rate of 4%, the Parent Company Liability

8 Assets for Exploration and Evaluation of Precious Stones

NIS'000

	December 31,		
	2016	2015	2014
Purchase of exploration rights, fees and planning	4,164	3,772	3,493
Geologic research and laboratory maintenance *	15,479	13,037	11,235
Drilling for exploratory purposes	5,124	4,707	4,555
Headquarters operations expenses directly attributable to the asset (mainly to a related company) **	22,231	20,742	19,707
Other expenses	4,502	4,253	3,985
	51,500	46,511	42,975

* Includes share based compensation in the amount of NIS 266 thousand.

** Includes share based compensation in the amount of NIS 457 thousand.

9 Short – Term Credit from Bank and Others

a. NIS'000	2016	2015	2014
Short-term bank credits	330	242	207
Short-term bank loan *	80	- . -	- . -
Short-term loan from shareholder **	109	100	567
Current maturities of long-term liabilities	177	175	35
	696	517	809

* As of December 31, 2016, includes an unlinked loan that bears annual interest at 7.75% (31.12.2015 –at the rate of prime + 6.15%).

** A loan that is linked to the U.S. dollar and bears annual interest at the rate of 10%.

- b. As of December 31, 2016, 2015 and 2014, the Company has a steady bank credit framework in the amount of NIS 300 thousand. The overdraft account is secured by the personal guarantee of interested parties. Concurrently, the Company deposited an amount in a foreign currency account, as a guarantee for repayment of the credit framework

10 Trade Payable

NIS'000	December 31,		
	2016	2015	2014
Checks payable	389	372	166
Open balances	260	132	124
	649	504	290

11 Interested Parties

a NIS'000:	December 31,		
	2016	2015	2014
Current debt	1,866	821	923
Current debt linked to the U.S. dollar	336	305	268
Current maturities of long-term loan	106	99	95
	<u>2,308</u>	<u>1,225</u>	<u>1,286</u>

b. In regard to covenants with "101" and with "808" – see Note 19a.

12 Other Accounts Payable

NIS'000	December 31,		
	2016	2015	2014
Accrued expenses *	1,351	741	741
Salaries and related items	219	257	202
Liability in regard to severance pay	265	-	-
	<u>1,835</u>	<u>998</u>	<u>943</u>

* As of December 31, 2016, 2015 and 2014 - Includes to an interested party in the amount of NIS 640 thousand.

13 Loans Convertible to Shares

a. During December 2016 the Company contracted two loan agreements, in a scope of approximately NIS 865 thousand (US\$ 225 thousand) that are convertible to shares on the date of the completion of an issuance that is planned in London. The loans bear, with the addition of interest at the end of a year from the date of signing the agreement annual interest at the rate of 8% and are scheduled for repayment, in the event that the issuance will not be completed

In the event that the issuance will be completed, then the loans will be converted to shares at a price that is 15% lower than the issuance share price. In addition, the lenders will be issued 3 non-marketable warrants for each share, with each warrant exercisable for one share in accordance with the following timetable

1. Commencing with the issuance date for a period of 18 months at the price per share that is a 15 discount to the issuance share price.
2. Commencing with the issuance date for a period of 24 months at the issuance share price
3. Commencing with the issuance date for a period of 36 months at the price per share that is a 25% premium to the issuance share price..

b. At the balance sheet date, an amount of NIS 504 thousand (US\$ 131 thousand) was received on account of the loan agreements. In accordance with a valuation by an independent external assessor, it was determined that the fair value of the financial liability at fair value through profit and loss as of December 31, 2016 is in the amount of NIS 728 thousand (US\$ 183 thousand)

14 Long Term Loans from Interested Party and Others

NIS'000	December 31,		
	2016	2015	2014
Bank loan	- . -	9	44
Loan from interested party (1)	883	980	1,000
Loan from supplier (2)	137	266	- . -
	1,020	1,255	1,044
Net of current maturities	(242)	(237)	(130)
	778	1,018	914

(1) Loan from an interested party

- A loan in NIS bearing annual interest of prime + 3.6%.
- Payment dates of the loan:

NIS'000	As of December 31, 2016	
	Principal	Principal and Interest
First year - current instalment	105	146
Second year	111	146
Third year	117	146
Fourth year	124	146
Fifth year and beyond	426	518
	883	1,102

(2) Loan from a supplier

- A loan for purchase of a tractor (Shovel), that was received during December 2015 and is payable in 24 equal monthly installments. The loan is in NIS and bears annual interest of 5%.
- Payment dates of the loan

NIS'000	As of December 31, 2016	
	Principal	Principal and Interest
First year - current installment	137	142

15 Finance Lease

	December 31,		
	2016	2015	2014
a. Composition:			
Liability	131	168	- . -
Net of current maturities	(40)	(37)	- . -
	91	131	- . -

- Amount of the liability was computed by capitalization of the leasehold payments for the payments period at an annual interest rate of 6.9%. The amounts are linked to the Consumer Price Index.

16 Share Capital

	Number of Shares	
	Authorized	Issued and Outstanding
a. Share Capital as of December 31, 2016, 2015 and 2014: Ordinary shares of NIS 1.00 par value.	10,000,000	9,387,60

17 Taxes on Income

- a. Data in regard to the tax environment wherein the Company operates:

Tax rates

Corporate tax rate in Israel for 2016 is 25%. For 2015 and 2014 the rates were 26.5%. At the end of December 2016, the Knesset passed the Economic Efficiency Law (Amendments in order to achieve Budget Goals for the Budgeted Years 2017 and 2018) – 2016, (hereinafter: "the Law"). In the framework of the legislation, the corporate tax rate was reduced to 24% for the year 2017 and to 23% for 2018 and thereafter.

- b. The Company received final assessments from the Income Tax Authorities through 2012.
- c. The Company has a carryforward loss for tax purposes as of December 31, 2016 in the amount of approximately NIS 57 million. The tax benefit in this regard will be included in the financial statements at the time when realization is expected.

18 Transactions with the Interested and Related Parties

- a. Transactions with interested parties

	Year Ended December 31,		
	2016	2015	2014
<u>Charged to statements of comprehensive loss:</u>			
Management fees paid to "101"	467	315	420
Fees for office services paid to "808"	35	36	34
Finance expenses paid to "101"	45	50	55
Interest income received from the parent company	570	834	756
Finance expenses to an interested party	- . -	37	60
<u>Charged to the statement of financial position:</u>			
Capitalized management fees and participation in expenses to "101"	1,724	1,034	1,365

- b. Transactions with interested and related parties:

	31 December,		
	2016	2015	2014
<u>In the framework of long-term assets:</u>			
Interested party	77	77	77
Loan to the parent company	1,116	1,076	1,037
<u>In the framework of short-term liabilities:</u>			
Interested parties	2,308	1,225	1,286
Expenses payable to the Chairman of the Board of Directors	640	640	640
Loans from interested parties			392

- c. Commitments: See Note 19a.

- d. Guarantees from interested parties for the Company's benefit: See Note 19b.

19 Commitments and Liens

a. Commitments with Interested Parties

Commitment regarding "101":

Since 1999, when the Company was established, it has been managed by 101 Gold Holdings Ltd. (hereinafter – "101"), (an interested company).

On August 30, 2010, a management agreement was signed between the Company and "101", commencing January 1, 2011, and in force for 60 months. Management services will include management of all business activities of the Company, in order to achieve its goals, including locating potential investors, mobilization of capital, signing of documents in the name of and for the Company, mobilization of experts and external advisors, purchase of insurance, and current management including all tasks performed by a company manager, such as management of operations and logistics, human resources management for the Company as well as secretariat of the Company and the managing secretary for the Company.

In addition, within the authority of the signed management agreement, "101" offers to the Company its headquarters for management.

In addition, it was determined that upon completion of the public issuance of the Company shares, "101" will receive warrants at the rate of 5% of the Company share capital at that date, fully diluted, and the warrants will be identical in terms to the warrants offered to the public in accordance with the prospectus as abovementioned. As of balance sheet date, "101" owns 2.38% of the Company's share capital.

In accordance with the agreement between the parties dated December 8, 2011, the Company transferred the agreement from itself to the Parent Company in order that the services supplied by "101" in accordance with this agreement will be rendered to both the Company and to the Parent Company, without any change in the scope of consideration and other terms to which "101" is entitled. The warrants granted to "101" are limited to shares of the Parent Company which will solely bear the cost of the warrants. On May 18, 2014 a management agreement was signed between "101" and the Company and the Parent Company (hereinafter: "the Group") for a period of 36 months commencing retroactively with January 1, 2014. In accordance with the agreement, "101" will render management services to the Group for a consideration of NIS 140 thousand per month. The management fees include an amount of NIS 100 thousand for management fees and an amount of NIS 40 thousand for refund of expenses. The management fees will be linked to the Consumer Price Index once a year. Share of the Company in management fees expense to "101" during 2016 was in the amount of NIS 1,260 thousand, of which NIS 945 thousand was attributed to exploration and valuation assets and NIS 315 thousand was attributed to general and administrative expenses.

Regarding a new management agreement, see Note 21a.

Commitment regarding "808":

On January 1, 2005 the Company signed an agreement with "808", an interested party in the Company, whereby "808" will assist in finding potential investors. In addition, "808" will provide collection services regarding the investment money of investors for a consideration of 2% of the total gross investment by each investor in the Company.

In addition, "808" will provide office services to the Company representatives in the United States for a fixed monthly retainer in the amount of US\$770. The Company and "808" agreed that the agreement will be valid until December 31, 2017. Each party has the right to bring the agreement to an early end upon written notification six months in advance.

b. Guarantees and Liens

1. The Company gave a guarantee through a bank in the amount of approximately NIS 7 thousand to a third party
2. The interested parties are personal guarantors (for an unlimited amount) for a bank in order to guarantee the Company's liabilities. Balance of the Company's liabilities as of December 31, 2016 that is guaranteed by the interested parties is in the amount of approximately NIS 410 thousand. See also Note 9b

3. Engineering equipment (shovel) at a cost of NIS 403 thousand had a charge placed on it in favour of the supplier of the equipment
4. A lien in favour of the leasing company was placed on a vehicle that was rendered to the Company under financial leasing terms – see Note 6. As of the date of the financial statements, Mr. Abraham Taub, personally guaranteed the Company's liability to the leasing company

20 Loss per Share

	Year Ended December 31,		
	2016	2015	2014
Loss for the year attributed to Company shareholders (NIS in thousands)	(549)	(310)	(634)
Weighted number of Ordinary shares	9,387,600	9,387,600	9,387,600
Basic and diluted loss per share (in NIS)	(0.058)	(0.033)	(0.068)

21 Events Subsequent to the Balance Sheet Date

- a. On March 9, 2017 the Parent Company's board of directors approved the engagement of the Company for provision of CEO services by Mr. Abraham Taub (one of the interested parties), commencing January 1, 2017 for a period of 36 months.

The Company will pay to Mr. Abraham Taub an amount of NIS 70 thousand per month for his CEO services as well as an amount of NIS 8 thousand as a refund of vehicle and telephone expenses. The agreement is subject to approval of the general assembly of shareholders as well as completion of the share issuance by the Company that is planned to occur on the Main Market.

- b. Between January and March 2017, the Company signed several convertible loan agreements in the scope of approximately NIS 500 thousand that are convertible to shares at the time the planned issuance will be completed in London.

The loans bear annual interest at the rate of 5% and are repayable in the event that the issuance will not be completed, with an addition of interest at the end of a year following the date of signing the agreement.

PART 9
UNAUDITED INTERIM ACCOUNTS

Accountant's Report



Jerusalem 12 December 2017

The Directors
Shefa Yamim (A.T.M.) Ltd.
90 Herzl Street
P.O.Box 720
Netanya - 4210602
Israel

Dear Sirs,

We have reviewed the accompanying condensed interim financial statements of Shefa Yamim (A.T.M.) Ltd. (hereinafter - "the Company") comprising the condensed interim statements of financial position as of June 30, 2017, and the related condensed interim statements of comprehensive loss, changes in shareholders' equity and cash flows for the six month periods then ended. The board of directors and management are responsible for the preparation and presentation of these condensed interim financial statements in accordance with IAS 34, "Interim Financial Reporting." Our responsibility is to express a conclusion on these interim consolidated financial statements based on our review.

Scope of the Review

We conducted our review in accordance with Review Standard No. 1 of the Institute of Certified Public Accountants in Israel, "Review of Interim Financial Information for Interim Periods performed by the Auditor of the Entity." A review of interim financial statements consists principally of enquiries of Company personnel, mainly with those responsible for accounting and monetary functions, implementation of analytic review principles applied to the financial data and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Auditing Standards. Consequently, it does not enable us to obtain assurance that we would become aware of all the significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our review, nothing has come to our attention that causes us to suspect that the financial information abovementioned was not prepared, from all significant aspects, in accordance with International Accounting Standard 34.

Barzily & Co.
Certified Public Accountants
A Member of MSI Worldwide

Interim Statements of Financial Position

NIS '000

	June 30 2017 2016 (Unaudited)		December 31 2016 (Audited)
Non-Current Assets:			
Fixed assets	1,727	2,144	1,946
Loan to the parent company	1,135	1,093	1,116
Interested party	77	77	77
Assets for exploration and evaluation of precious stones	53,293	48,437	51,500
Deferred issuance expenses	1,718	88	905
Total non-current assets	<u>57,950</u>	<u>51,839</u>	<u>55,544</u>
Current Assets:			
Cash and cash equivalents	700	1	1
Deposit in bank	175	192	192
Receivables	289	255	288
Total current assets	<u>1,164</u>	<u>448</u>	<u>481</u>
Total Assets	<u>59,114</u>	<u>52,287</u>	<u>56,025</u>
Shareholders' Equity	<u>49,064</u>	<u>46,822</u>	<u>48,820</u>
Non-current Liabilities:			
Long-term loans from interested party and others	725	899	778
Finance lease	70	111	91
Liability for severance pay	112	202	120
Total Non-current Liabilities	<u>907</u>	<u>1,212</u>	<u>989</u>
Current Liabilities:			
Short-term credit from bank and others	1,202	578	696
Trade payables	938	498	649
Interested parties	2,138	2,201	2,308
Other accounts payable	3,311	976	1,835
Loans convertible to shares	1,554	-	728
Total current liabilities	<u>9,143</u>	<u>4,253</u>	<u>6,216</u>
Total Shareholders' Equity and Liabilities	<u>59,114</u>	<u>52,287</u>	<u>56,025</u>

Interim Statements of Comprehensive Income

NIS'000 (except for per share losses)

	June 30		December 31
	2017 (Unaudited)	2016	2016 (Audited)
Costs and expenses			
General and administrative expenses	(364)	(417)	(914)
Capital gain	- . -	41	178
Operating loss	(364)	(376)	(736)
Financial expenses	(560)	(57)	(383)
Financial income	208	246	570
Financial income, net	(352)	189	187
Loss for the year and comprehensive loss attributed to the Company shareholders	(716)	(187)	(549)
Basic and diluted loss per share (in NIS) attributed to the Company shareholders	(0.076)	(0.020)	(0.058)

Interim Statements of Changes in Equity

NIS'000

	Share Capital	Additional Paid-in Capital	Capital Reserve for Share- based Payments	Capital Reserve from Transactions with Interested Party	Accumulated Deficit	Total Shareholders' Equity
Balance as of January 1, 2017	9,387	78,626	5,291	6,312	(50,796)	48,820
Comprehensive Loss for the year	- . -	- . -	- . -	- . -	(716)	(716)
Share based compensation			183	- . -	- . -	183
Receipts for issue of shares during 2012 *	- . -	777	- . -	- . -	- . -	777
Balance as of June 30, 2017	9,387	79,403	5,474	6,312	(51,512)	49,064
Balance as of January 1, 2016	9,387	75,832	4,416	6,312	(50,247)	45,700
Comprehensive Loss for the period	- . -	- . -	- . -	- . -	(187)	(187)
Receipts for issue of shares during 2012 *	- . -	1,309	- . -	- . -	- . -	1,309
Balance as of June 30, 2016	9,387	77,141	4,416	6,312	(50,434)	46,822
<u>Audited</u>						
Balance as of January 1, 2016	9,387	75,832	4,416	6,312	(50,247)	45,700
Comprehensive Loss for the year	- . -	- . -	- . -	- . -	(549)	(549)
Share based compensation	- . -	- . -	875	- . -	- . -	875
Receipts for issue of shares during 2012 *	- . -	2,794	- . -	- . -	- . -	2,794
Balance as of December 31, 2016	9,387	78,626	5,291	6,312	(50,796)	48,820

Interim Statements of Cash Flows

NIS'000

	June 30, 2017 (Unaudited)	2016	December 31, 2016 (Audited)
Cash flows from operating activities:			
Loss for the year	(716)	(187)	(549)
Appendix A - Adjustments required to reconcile loss for the year to net cash used in operating activities	101	(242)	(151)
Net cash used in operating activities	(615)	(429)	(700)
Cash flows from investing activities:			
Purchase of fixed assets	(67)	(213)	(305)
Consideration from sale of fixed assets	- . -	43	180
Investment in exploration and evaluation assets	(1,577)	(865)	(2,638)
Interest received	186	228	530
Net cash used in investing activities	(1,458)	(807)	(2,233)
Cash flows from financing activities:			
Consideration received for issuance of share capital (including additional capital)	777	1,309	2,794
Increase in deferred issuance expenses	(666)	(32)	(239)
Receipt (Repayment) of credits from banks and others, net	578	60	168
Repayment of loans from interested parties, net	(53)	(25)	(101)
Receipt of loans convertible to shares	577	- . -	504
Receipt of long-term loans	1,647	- . -	- . -
Repayment of long-term loans	(20)	(27)	(46)
Interest paid	(78)	(48)	(157)
Net cash provided by financing activities	2,762	1,237	2,923
Linkage differences in regard to cash and cash equivalents	10	(1)	10
Increase in cash and cash equivalents	699	- . -	- . -
Cash and cash equivalents at the beginning of the year	1	1	1
Cash and cash equivalents at the end of the year	700	1	1

Interim Statements of Cash Flows

APPENDIX A

NIS'000

	June 30,		December 31,
	2017	2016	2016
	(Unaudited)		(Audited)
Adjustments required to show cash flows for operating activities:			
Expenses (Income) not involving cash flows:			
Depreciation *	32	38	72
Capital gain		(41)	(178)
Share based compensation	27		152
Finance income, net	352	(189)	(187)
Changes in operating asset and liability items:			
Increase in receivables	(1)	(141)	(174)
Increase (Decrease) in trade payables	348	(102)	(95)
Increase (Decrease) in liability to an interested party	(53)	215	297
Increase (Decrease) in other accounts payable	(604)	(22)	(38)
	<u>101</u>	<u>(242)</u>	<u>(151)</u>

*Net depreciation loaded on the exploration and evaluation assets

APPENDIX B

NIS'000

	June 30,		December 31
	2017	2016	2016
	(Unaudited)		(Audited)
Significant non-cash flow operations:			
Payables in regard to exploration and evaluation of precious stones	1,797	1,781	1,024
Payables in regard to deferred issuance expenses	<u>757</u>	<u>- . -</u>	<u>610</u>

Notes to Interim Financial Information

1 General

a. The reported entity

Shefa Yamim (A.T.M.) Ltd. (hereinafter – the “Company”) is an Israeli company. The Company is a subsidiary of Shefa Yamim Ltd. (hereinafter – the “Parent Company”) that owns 75% of the shares of the Company. The Parent Company is a public company whose securities are registered for trade on the Tel Aviv Stock Exchange. These condensed interim financial statements are to be viewed together with the annual financial statements of the Company as of December 31, 2016 and their accompanying Notes.

- b. The Company engages in prospecting and explorations for diamonds, precious stones ("precious stones") along the length of the Nahal Kishon riverbed in the Zevulun Valley, in Emek Yizrael, on designated slopes of Mount Carmel and in the Ramot Menashe and Migdal Haemek areas based on prospecting and exploration permits received from the Superintendent of Mining in the Office of National Infrastructure of the Government of Israel, in accordance with the Mines Ordinance.

2 Basis of Preparation

a. Declaration in regard to Initial implementation of International Financial Reporting Standards (IFRS)

The interim financial statements have been prepared in accordance with IAS 34 Interim Financial Reporting. The financial statements do not include all the information and disclosures required in the annual financial statements, and should be read in conjunction with the Company's annual consolidated financial statements as at and for the year ended December 31, 2016 (hereinafter: “the Annual Financial Statements”). However, selected explanatory notes are included to explain events and transactions that are significant to an understanding of the changes in the Company's financial position and performance since the Annual Financial Statements.

b. Foreign currency and linkage basis

Detail in regard to the Consumer Price Index and the exchange rate of the U.S. dollar:

	Six Months Ended June 30,		Year Ended December 31,
	2017	2016	2016
Change in CPI (applicable)	- . -	- . -	(0.20%)
Change in CPI (known)	0.70%	(0.40%)	(0.30%)
Change in rate of exchange - U.S. \$	(9.08%)	(1.44%)	(1.46%)
Change in rate of exchange – GBP £	(3.87%)	(10.59%)	(18.31%)

c. Judgments and estimates

In preparing these Interim Financial Statements in accordance with the IFRS, management is required to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities as well as income and expenses. We clarify that actual results may differ from these estimates.

The significant judgments made by management in applying the Company's accounting policies and the key sources of estimation that served for estimates that are bound up with uncertainty were the same as those that were applied in the Annual Financial Statements.

3 Significant Events During the Reported Period and Subsequently

- a. During the reported period, the Company continued its preparations for the Company issuing shares on the Main Market.
- b. During the reported period, the Company signed four convertible loan term sheets with a scope of NIS 584 thousand (US\$160 thousand) that are convertible to shares at the date of completion of the London Stock Exchange Listing. The loans bear annual interest at the rate of 5% and are scheduled to be repaid, in the event that the London Stock Exchange Listing is not completed, with the addition of interest at the end of a year from the signing of the agreement. In the event that the London Stock Exchange Listing will be completed, all the loans will be converted to shares at the lower rate of 15% - 20% of the share price at issuance. In addition, the lenders will have a non-marketable Warrant whereby each Warrant will be exercisable to one share, commencing with the date of the London Stock Exchange Listing, for a period of 18 months at the issuance share price. In regard to loans in the amount of NIS 433 thousand (US\$ 120 thousand), the lenders will have the right to convert their loans to Parent Company shares in the event that the London Stock Exchange Listing will not occur within 12 months subsequent to signing the loan agreement.

Subsequent to 12 months from signing the loan agreement, all the abovementioned lenders have the right to convert their loans to shares of the parent company in the event that there will not be an issuance of Company shares on the London stock exchange.

In accordance with a valuation by a professional external assessor, the fair value of the financial liability, as of June 30, 2017, is in the amount of NIS 1,554 thousand (includes an amount of NIS 768 thousand in regard to a loan that was included in the valuation as of December 31, 2016).

Subsequent to balance sheet date, the Company signed loan agreements as a continuation of the memorandums, with all the lenders. The loan agreements determined a discount price for all the lenders that is that is 15% lower than the issuance price. This is in accordance with a decision on August 29, 2017 by the board of directors of the Parent Company.

It was also determined in the agreements that Subsequent to 12 months from signing the loan agreement, all the abovementioned lenders have the right to convert their loans to shares of the parent company in the event that there will not be an issuance of Company shares on the London stock exchange.

- c. Subsequent to balance sheet date, the Company signed six additional convertible loan agreements, with a scope of NIS 15,914 thousand (US\$ 4,552 thousand) that are convertible to shares (an amount of US\$ 125 thousand has been received during the year 2016, upon signing of the abovementioned agreements terms of this amount were updated). In the event that the London Stock Exchange Listing will be completed, the loans will be converted to shares at a price that is 15% lower than the London Stock Exchange Listing price. The loans bear annual interest at the rate of 5% and will be repaid, in the event that the London Stock Exchange Listing will not be completed, with the addition of interest at the end of a year from the signing of the agreement.

Subsequent to 12 months from signing the loan agreement, all the abovementioned lenders have the right to convert their loans to shares of the Parent Company in the event that there will not be an issuance of Company shares on the London stock exchange.

In addition, in regard to 2 of the loans, in the amount of NIS 3,110 thousand (US\$890 thousand), the lenders will be issued 3 non-marketable Warrants for every share, with each Warrant exercisable for one share in accordance with the dates and terms as follows:

1. Commencing with the London Stock Exchange Listing date, for an 18 month period, at the price per share that is a 15% discount to the issuance share price.
2. Commencing with the London Stock Exchange Listing date, for a 24 month period, at the issuance share price.

3. Commencing with the London Stock Exchange Listing date, for a 36 month period, at the price per share that is a 25% premium to the issuance share price.

In regard to one loan, in the amount of NIS 12,236 thousand (US\$ 3,500 thousand), the lender will be issued a non-marketable Warrant for each share that is exercisable in accordance with the dates and terms as follows:

1. One-third of the Warrants, commencing with the London Stock Exchange Listing date, for an 18 month period, at the price per share that is a 15% discount to the issuance share price.
2. The second one-third of the Warrants, commencing with the London Stock Exchange Listing date, for a 24 month period, at the issuance share price.
3. The last third of the Warrants, commencing with the London Stock Exchange Listing date, for a 36 month period, at the price per share that is a 25% premium to the issuance share price.

In regard to two loans in the amount of NIS 566 thousand (US\$ 162 thousand), the lenders will be issued a non-marketable Warrant for every share with each Warrant exercisable to one share commencing with the London Stock Exchange Listing date for an 18 month period at the London Stock Exchange Listing price per share.

Until the balance sheet date, the Company received on account of the above-mentioned loan agreements an amount of NIS 1,851 thousand (US\$ 520 thousand) that are included in other accounts payable.

- d Concurrently, subsequent to the balance sheet date, the Company engaged with interested parties by signing two agreements for rendering convertible loans, by offsetting the payable balances, in the scope of NIS 1,365 thousand (US\$ 390 thousand) that are convertible to shares. In the event that the London Stock Exchange Listing will be completed, the loans will be converted to shares utilizing the identical terms for the loans that include 3 non-marketable Warrants. In the event that the London Stock Exchange Listing of the Company in London will not occur, then subsequent to 12 months from the signing of the term sheets, these agreements will be nullified retroactively. These agreements are subject to approval by the general meeting of the Parent Company.

On July 23, 2017 a management agreement was signed between the Company and its CEO, Mr. Avi Taub, (hereinafter: "the CEO"). The agreement is valid from January 1, 2017 for a 36 month period, for a comprehensive consideration in the amount of NIS 70 thousand per month with the addition of VAT. The amount of management fees will be linked to the Consumer Price Index once a year. In addition, the Company supplied the CEO with a car and a cellular phone and will pay all the related maintenance and usage expenses. This agreement replaces the prior management agreement with 101 Gold Holdings Limited ("101").

PART 10

CREST AND DEPOSITARY INTERESTS

The Company has established arrangements to enable investors to settle interests in the Shares through the CREST system. CREST is a paperless settlement system allowing securities to be transferred from one person's CREST account to another without the need to use share certificates or written instruments of transfer. Securities issued by non-UK companies, such as the Company, cannot be held or transferred electronically in the CREST system. However, depositary interests allow such securities to be dematerialised and settled electronically through CREST. Where investors choose to settle interests in the Shares through the CREST system, and pursuant to depositary arrangements established by the Company, the Depositary will hold the Shares and issue Depositary Interests representing the underlying Shares, which will be held on trust for the holders of the Depositary Interests. The Depositary Interests will be independent securities constituted under English law which may be held and transferred through the CREST system. Investors should note that it is the Depositary Interests which will be admitted to, and settled through, CREST and not the Shares.

The Articles of Association are consistent with CREST membership in respect of Depositary Interests and the holding and transfer of Depositary Interests in uncertified form. The Board has passed a resolution authorising the issuance of Shares in book-entry form.

The Company and the Depositary entered into the Depositary Agreement on 11 December 2017, the principal terms of which are summarised below.

The Depositary Interests have been created pursuant to, and issued on the terms of, the Deed Poll executed on 11 December 2017 by the Depositary in favour of the holders of the Depositary Interests from time to time. Holders of Depositary Interests should note that they will have no rights against Euroclear (the operators of CREST) or its subsidiaries in respect of the underlying Shares or the Depositary Interests representing them.

If a Shareholder so requests, its Shares will be transferred to an account of the Depositary or its nominated custodian (the "Custodian") and the Depositary will issue Depositary Interests to participating CREST members. Each Depositary Interest will be treated as one Share for the purposes of determining, for example, eligibility for any dividends. The Depositary will pass on to holders of Depositary Interests any stock or cash benefits received by it as Shareholder on trust for such Depositary Interest holder. Depositary Interest holders, through the Depositary, will also be able to receive notices of meetings of Shareholders and other notices issued by the Company to the Shareholders.

The Depositary Interests have the same security code (ISIN) as the underlying Shares and will not require a separate admission to the Main Market. The Shares can then be traded with settlement taking place within the CREST system in the form of Depositary Interests in the same way as any other CREST securities that are directly eligible in their own right. Application will be made for the Depositary Interests to be admitted to CREST with effect from Admission.

If a holder wishes to cancel its Depositary Interest, it will either directly or through its broker instruct the applicable CREST participant to initiate a CREST withdrawal (where such withdrawal is sent to the Depositary) for the name that appears on the Register. The Depositary Interest will then be cancelled by the Depositary and the related Shares will be credited to the account on the Register by the Registrar. The Registrar will then send the holder a new Share certificate.

The information included within this Part 10 relating to the obtaining and cancellation of Depositary Interests by a holder is intended to be a summary only and is not to be construed as legal, business or tax advice. Each investor should consult his or her own lawyer, financial adviser, broker or tax adviser for legal, financial or tax advice in relation to Depositary Interests.

Deed Poll

The Deed Poll was executed on 11 December 2017 by the Depositary and contains the following provisions:

1. The Depositary will hold (itself or through the Custodian), as bare trustee, the underlying Shares and all and any rights and other securities, property and cash attributable to the underlying Shares pertaining to the Depositary Interests for the benefit of the holders of the relevant Depositary Interests as tenants in common. The Depositary will re-allocate securities or Depositary Interests

distributions allocated to the Depositary or Custodian *pro rata* to the Shares held for the respective accounts of the holders of Depositary Interests, but will not be required to account for fractional entitlements arising from such re-allocation.

2. Holders of Depositary Interests agree to give such warranties and certifications to the Depositary as the Depositary may reasonably require. In particular, holders of Depositary Interests warrant, *inter alia*, that the securities in the Company transferred or issued to the Depositary or Custodian on behalf of the Depositary for the account of the Depositary Interest holder are free and clear of all liens, charges, encumbrances or third party interests and that such transfers or issues are not in contravention of the Company's constitutional documents or any contractual obligation, or applicable law or regulation binding or affecting such holder, and holders of Depositary Interests agree to indemnify the Depositary against any liability incurred as a result of any breach of such warranty.
3. The Depositary and any Custodian shall pass on to the Depositary Interest holders and, so far as they are reasonably able, exercise on behalf of the Depositary Interest holders all rights and entitlements received or to which they are entitled in respect of the underlying Shares which are capable of being passed on or exercised. Rights and entitlements to cash distributions, to information, to make choices and elections and to call for, attend and vote at meetings shall, subject to the Deed Poll, be passed on in the form in which they are received, together with amendments and additional documentation necessary to effect such passing-on, or, as the case may be, exercised in accordance with the Deed Poll. If arrangements are made which allow a holder to take up rights in the Company's securities requiring further payment, the holder must put the Depositary in cleared funds before the relevant payment date or other date notified by the Depositary if it wishes the Depositary to exercise such rights.
4. The Depositary will be entitled to cancel Depositary Interests and treat the holders thereof as having requested a withdrawal of the underlying securities in certain circumstances, including where a Depositary Interest holder fails to furnish the Depositary with such certificates or representations as to material matters of fact, including his identity, as the Depositary deems appropriate.
5. The Depositary warrants that it is an authorised person under the FSMA and is duly authorised to carry out custodian and other activities under the Deed Poll. It also undertakes to maintain that status and authorisation.
6. The Deed Poll contains provisions excluding and limiting the Depositary's liability. For example, the Depositary shall not be liable to any Depositary Interest holder or any other person for liabilities in connection with the performance or non-performance of obligations under the Deed Poll or otherwise except as may result from its negligence or wilful default or fraud or that of any person for whom it is vicariously liable, provided that the Depositary shall not be liable for the negligence, wilful default or fraud of any Custodian or agent which is not a member of its group unless it has failed to exercise reasonable care in the appointment and continued use and supervision of such Custodian or agent. Except in the case of personal injury or death, any liability incurred by the Depositary to a holder under the Deed Poll is limited to the lesser of:
 1. the value of the Shares that would have been properly attributable to the Depositary Interests to which the liability relates; and
 2. that proportion of £5 million which corresponds to the portion which the amount the Depositary would otherwise be liable to pay to the holder bears to the aggregate of the amounts the Depositary would otherwise be liable to pay to all such holders in respect of the same act, omission or event which gave rise to such liability or, if there are no such amounts, £5 million.
7. The Depositary is entitled to charge holders of Depositary Interests fees and expenses for the provision of its services under the Deed Poll.
8. Each holder of Depositary Interests is liable to indemnify the Depositary and any Custodian (and their agents, officers and employees), and hold each of them harmless, from and against all liabilities arising from or incurred in connection with, or arising from any act related to, the Deed Poll so far as they relate to the property held for the account of that holder, other than those caused by or resulting from the wilful default, negligence or fraud of: (i) the Depositary; or (ii) the Custodian or any agent if such Custodian or agent is a member of the Depositary's group or if, not

being a member of the same group, the Depositary shall have failed to exercise reasonable care in the appointment and continued use of such Custodian or agent.

9. The Depositary is entitled to make deductions from the deposited property or any income or capital arising therefrom, or to sell such deposited property and make deductions from the sale proceeds thereof, in order to discharge the indemnification obligations of Depositary Interest holders.
10. The Depositary may terminate the Deed Poll by giving not less than 30 days' notice. During such notice period, Depositary Interest holders may cancel their Depositary Interests and withdraw their deposited property and, if any Depositary Interests remain outstanding after termination, the Depositary shall, as soon as reasonably practicable and amongst other things: (i) deliver the deposited property in respect of the Depositary Interests to the relevant Depositary Interest holder or at the Depositary's discretion; (ii) sell all or part of such deposited property. It shall, as soon as reasonably practicable, deliver the net proceeds of any such sale, after deducting any sums due to the Depositary, together with any other cash held by it under the Deed Poll, *pro rata* to the Depositary Interest holders in respect of their Depositary Interests.
11. The Depositary or the Company may require from any holder: (i) information as to the capacity in which Depositary Interests are owned or held by such holders and the identity of any other person with any interest of any kind in such Depositary Interests or the underlying Shares and the nature and amounts of such interests; (ii) evidence or declaration of nationality or residence of the legal or beneficial owner(s) of Depositary Interests and such information as is required to transfer the relevant Depositary Interests or y Shares to the holder; and (iii) such information as is necessary or desirable for the purposes of the Deed Poll or CREST system, and holders are bound to provide such information requested. The holders of Depositary Interests consent to the disclosure of such information by the Depositary, Custodian or Company to the extent necessary or desirable to comply with their respective legal or regulatory obligations.
12. Furthermore, to the extent that the Company's constitutional documents, applicable laws or regulations, or any court or legal or regulatory authority may require or the Company deems it necessary or desirable in connection therewith (including in response to requests for information), the disclosure to the Company of, or limitations in relation to, beneficial or other ownership of, or interests of any kind whatsoever in, the Company's securities, the Depositary Interest holders are to comply with such provisions and with the Company's securities, the Depositary Interest holders are to comply with such provisions and with the Company's instructions with respect thereto, and consent to the disclosure of such information for such purposes. It should also be noted that holders of Depositary Interests may not have the opportunity to exercise all of the rights and entitlements available to holders of the Shares, including, for example, the ability to vote on a show of hands. In relation to voting, it will be important for holders of Depositary Interests to give prompt instructions to the Registrar or its nominated Custodian, in accordance with any voting arrangements made available to them, to vote the underlying Shares on their behalf or, to the extent possible, to take advantage of any arrangements enabling holders of Depositary Interests to vote such Shares as a proxy of the Registrar or its nominated Custodian.

Depositary Agreement

The Depositary Agreement was entered into between the Company and the Depositary on 11 December 2017 and contains the following provisions:

1. Under the Depositary Agreement, the Company appoints the Depositary to constitute and issue from time to time, upon the terms of the Deed Poll, a series of Depositary Interests representing Shares and to provide certain other services (including depositary services, custody services and dividend services) in connection with such Depositary Interests.
2. The Depositary agrees that it will comply with the terms of the Deed Poll and that it will perform its obligations with reasonable skill and care. The Depositary assumes certain specific obligations, including, for example, to arrange for the Depositary Interests to be admitted to CREST as participating securities and provide copies of, and access to, the register of Depositary Interests.
3. The Company acknowledges that it shall be its responsibility and undertakes to advise the Depositary promptly of any securities laws or other applicable laws, rules or regulations with which the Depositary must comply in providing the services.

4. The Company agrees to provide such assistance, information and documentation to the Depositary as is reasonably required by the Depositary for the purposes of performing its duties, responsibilities and obligations under the Depositary Agreement.
5. The Depositary is to indemnify the Company and its officers and employees from and against any loss (excluding indirect, consequential or special loss) which any of them may incur in any way as a result of or in connection with the fraud, negligence or wilful default of the Depositary (or its officers, employees, agents or sub-contractors).
6. The appointment of the Depositary shall continue for a fixed term of one year until terminated by either party giving to the other party not less than six months' notice, subject to earlier termination in accordance with the terms of the Depositary Agreement. Either party may terminate the Depositary Agreement with immediate effect by notice in writing if the other party: (i) shall be in persistent or material breach of any term (of the Depositary Agreement) and such breach is not remedied (if capable of being remedied) within 21 days of receiving notice of such breach and a request for such remedy; (ii) goes into insolvency or liquidation or administration or a receiver is appointed over any part of its undertaking or assets, subject to certain provisos; or (iii) shall cease to have the appropriate authorisations which permit it lawfully to perform its obligations under the Depositary Agreement. Should the Depositary Agreement be terminated for any reason, other than arising from the Depositary's fraud, negligence, wilful default or material breach of a term of the Depositary Agreement, the Company shall within 30 days of termination pay to the Depositary the Depositary's reasonable costs and expenses of transferring the Depositary Interest register to its new registrar.
7. The Depositary will be entitled to employ agents for the purposes of carrying out certain of its obligations under the Depositary Agreement which the Depositary reasonably considers to be of a specialist nature.
8. The Company is to pay to the Depositary an annual fee for the services. The Company shall pay a fixed fee for the deposit, cancellation and transfer of the Depositary Interests and the compilation of the initial Depositary Interests register. The Company shall in addition reimburse the Depositary within 30 days of the Depositary's invoice for all network charges, CREST charges, money transmission and banking charges and other out-of-pocket expenses incurred by it in connection with the provision of the services under the Depositary Agreement.
9. The Company will indemnify the Depositary from and against all losses suffered or incurred by the Depositary as a result of or in connection with the performance of the Depositary of its obligations under the Depositary Agreement. This indemnification does not restrict or limit general obligation at law to mitigate a loss it may suffer or incur as a result of any event that may give rise to a claim under this indemnity.
10. The aggregate liability of the Depositary to the Company over any 12-month period under the Depositary Agreement, whether such liability arises under any express or implied terms of the Depositary Agreement, in tort, for misrepresentation, for breach of contract, a contribution or any other duty imposed by law or in any other way will not exceed twice the amount of the Fees (as defined in the Depositary Agreement) payable in any 12-month period in respect of a single claim or in the aggregate.

PART 11

TAXATION

The following contains a summarised description of material that is only a general guide to the main UK and Israeli tax consequences that may apply to shareholders of the Company who hold their shares as investments and are UK tax residents or ordinarily resident individuals or companies, and is not intended to constitute a complete analysis of all tax consequences relating to it, nor should it be construed as legal or professional tax advice and it is not exhaustive of all possible tax considerations. It does not discuss all aspects of Israeli or UK taxation that may be important to particular investors in light of their particular circumstances, including investors subject to special tax rules, such as financial institutions, insurance companies, dealers or traders in securities, currencies, notional principal contracts, tax-exempt organisations, partnerships, Israeli holders that own (directly, indirectly or constructively) 10 per cent. or more of the voting shares of the Company or Israeli tax resident with a special tax status. The comments are based on current UK and Israeli tax legislation and what is understood to be the current practice of the relevant tax authorities. Levels of taxation may change from time to time. As personal situations may differ, you should consult your tax adviser to determine the applicability to you of the rules discussed below and the particular tax effects of the Offer, including the application of Israeli or UK Law. The Company is not a UK tax resident company.

Israeli Tax Considerations

The following is a summary of the material Israeli income tax consequences of the acquisition, ownership and disposition of Shares, but it does not purport to be a comprehensive description of all the tax considerations that may be relevant to a decision to purchase in the offering and own Shares. This discussion does not address all the aspects of Israeli tax law that may be relevant to an investor in light of its particular circumstances or to certain types of investors subject to special treatment under applicable law. The following discussion also contains an overview of the current tax regime applicable to companies in Israel, with specific reference to its effect. This discussion is based upon the tax laws of Israel and regulations thereunder as of the date hereof, which are subject to change, possibly with retroactive effect. To the extent that the discussion is based on new tax legislation that has not been subject to judicial or administrative interpretation, we cannot assure you that the views expressed in this summary will be accepted by the appropriate tax authorities or the courts.

The following section also refers to the material Israeli tax consequences concerning the ownership and disposition of the Shares. This summary does not discuss all the aspects of Israeli tax law that may be relevant to a particular investor in light of his or her personal investment circumstances or to some types of investors subject to special treatment under Israeli law. Examples of such investors include residents of Israel or traders in securities who are subject to special tax regimes not covered in this discussion. Because parts of this discussion are based on new tax legislation that has not yet been subject to judicial or administrative interpretation, we cannot assure you that the appropriate tax authorities or the courts will accept the views expressed in this discussion. The discussion below is subject to change, including due to amendments under Israeli law or changes to the applicable judicial or administrative interpretations of Israeli law, which change could affect the tax consequences described below.

Capital gains taxes

Israeli Tax Consequences

Generally, the tax rate applicable to capital gains derived from the sale of shares, whether listed on a stock market or not, is the corporate tax rate in Israel (24% in 2017 and 23% in 2018 and thereafter) for companies and 25% for individuals, which will be regarded as the top slice of the individual's income, unless such shareholder claims a deduction for finance expenses and linkage differences expenses in connection with such shares, in which case the gain will generally be taxed at a rate of 30%. Additionally, if such shareholder is considered a "Substantial Shareholder" at any time during the 12-month period preceding such sale, the tax rate will be 30%. A "Substantial Shareholder" is defined as being someone who holds, directly or indirectly, by himself or "together with another", at least 10% of one or more of the means of control (including among other things, the right to receive profits of the company, voting rights, the right to receive the company's liquidation proceeds and the right to appoint a director) in the company – "together with another" means together with a relative, or together with someone who is not a relative but with whom, according to an agreement, there is regular cooperation in material matters of the Company, directly or indirectly.

Different tax rates will apply to dealers in securities. Individual and corporate shareholders whose gains from selling or otherwise disposing of shares that are deemed to be business income are taxed at the current tax rates applicable to business income for corporations at the corporate tax rate in Israel (24% in 2017 and 23% in 2018 and thereafter) and a marginal tax rate (47% in 2017 and thereafter) for individuals.

Non-Israeli Residents

Israeli capital gains tax is imposed on the disposal of capital assets by a non-Israeli resident if such assets are either (i) located in Israel; (ii) shares or rights to shares in an Israeli resident company, or (iii) represent, directly or indirectly, rights to assets located in Israel, unless a specific exemption is available or unless a tax treaty between Israel and the seller's country of residence provides otherwise.

Notwithstanding the foregoing, a non-Israeli resident (individual or corporation) who derives capital gains from the sale of shares in an Israeli resident company that is listed for trading on a recognized stock exchange outside of Israel will generally be exempt from Israeli tax so long as, among other things, such shareholders did not acquire their shares prior to the company's initial public offering and the gains did not derive from a permanent establishment of such shareholders in Israel. The exemption on sale of shares shall not apply, if on the day of its acquisition and during two years before its sale most of the assets held by the company, directly or indirectly stem from: (i) real estate rights or real estate association rights as defined in the Israeli Land Law, 5729-1969; (b) a right to use real estate or any asset connected to real estate in Israel; (c) a right to income from real estate located in Israel; or (d) a right to exploit natural resources in Israel.

However, non-Israeli corporations will not be entitled to the foregoing exemption if Israeli residents: (i) have a controlling interest of 25% or more in such non-Israeli corporation or (ii) are the beneficiaries of, or are entitled to, 25% or more of the revenues or profits of such non-Israeli corporation, whether directly or indirectly. Such exemption is not applicable to a person whose gains from selling or otherwise disposing of the shares are deemed to be business income.

Additionally, a sale of shares by a non-Israeli resident may be exempt from Israeli capital gains tax under the provisions of an applicable tax treaty. For example, the double taxation treaty between Israel and the UK (the "**UK Treaty**") generally exempts UK residents from Israeli capital gains tax in connection with such sale if they are subject to tax on the gain in the UK.

Dividends

Israeli Residents

Israeli resident individuals are generally subject to Israeli income tax on the receipt of dividends paid on ordinary shares. The tax rate applicable to such dividends is 25% or 30% for a shareholder that is considered a Substantial Shareholder at any time during the 12-month period preceding such distribution.

Israeli resident companies are generally not subject to tax on the receipt of dividends paid on ordinary shares when such dividend was distributed by an Israeli resident company.

Non-Israeli Residents

Non-Israeli residents (whether individuals or corporations) are generally subject to Israeli income tax on the receipt of dividends paid for publicly traded shares, like the Company's Shares, at the rate of 25% or 30% (if the dividend recipient is a Substantial Shareholder at the time of receiving the dividend or at any time during the preceding 12 months). Such dividends are generally subject to Israeli withholding tax at a rate of 25% so long as the shares are registered with a nominee company (whether or not the recipient is a Substantial Shareholder), unless relief is provided in a treaty between Israel and the shareholder's country of residence (subject to the receipt of a valid certificate from the Israeli Tax Authority allowing for a reduced tax rate).

For example, the UK Treaty provides for a reduced rate of 15% where the recipient is a UK resident that is subject to tax on the dividends received in the UK. This relief under the UK Treaty will not be available if the holder of ordinary shares has a permanent establishment in Israel and his holding of ordinary shares with respect to which the dividends are paid is effectively connected with the trade or business carried on through that permanent establishment. In addition, the reduced rate of withholding tax is also not available under the UK Treaty if: (i) the recipient owns 10% or more of the class of shares in respect of which the dividend is paid, to the extent that the dividend in question could only

have been paid out of profits which the Company earned or out of other income which it received in a period ending twelve months or more before the relevant date (for these purposes, the “relevant date” is the date on which the recipient of the dividend became the owner of 10% or more of the class of shares in question); and (ii) the recipient cannot show that the shares were acquired for bona fide commercial reasons and not primarily for the purpose of securing the benefit of the UK Treaty.

The Company cannot assure you in the event that a dividend is declared that the distributable income in a way that will reduce shareholders’ tax liability.

Excess Tax

Individuals who are subject to tax in Israel are also subject to an additional tax at a rate of 3% on annual income exceeding NIS 640,000 for 2017, which amount is linked to the annual change in the Israeli consumer price index, including, but not limited to, dividends, interest and capital gain.

United Kingdom Tax Considerations

The following is of a general nature only and is based on current Tax law and HM Revenue and Customs (“HMRC”) practice as published at the date of this Prospectus, both of which are subject to change, possibly with retrospective effect. It is intended as a general guide to main UK tax consequences applicable to all types of Shareholders. Except where the position of non-UK residents is expressly referred to, it applies only to Shareholders resident, and in the case of individuals, also domiciled in (and only in) the UK for tax purposes, who are the absolute beneficial owners of Shares as an investment (other than under an individual savings account or self-invested personal pension) and any dividends paid in respect of the Shares, and who, together with connected or associated persons, hold less than ten per cent. of the Shares. The tax position of certain categories of holders of Shares who are subject to special rules (such as persons who have (or are deemed to have) acquired their Shares in connection with an office or employment, dealers in securities, insurance companies and collective investment schemes) is not considered.

If you are in any doubt about your tax position, or if you may be subject to tax in a jurisdiction other than the United Kingdom, you should consult your own professional tax adviser.

Any reference in this United Kingdom Tax Considerations section (other than the section “*UK stamp duty and stamp duty reserve tax*”) to Shares includes a reference to Depositary Interests.

Dividends

The Company will not be required to withhold UK tax at source when paying a dividend.

However, payments of dividends may be subject to Israeli dividend withholding tax: see above, “*Israeli Tax Considerations – Dividend – Non-Israeli Residents*”, for a description of the Israeli dividend withholding tax position.

Individuals

For 2017/18, a nil rate of income tax will apply for the first £5,000 of dividend income received by individual Shareholders in a tax year (the “Nil Rate Amount”). Under the Finance (No 2) Act 2017 enacted on 16 November 2017, the Nil Rate Amount will reduce to £2,000 for dividends received on or after 6 April 2018.

The rates of tax on dividend income received by an individual Shareholder in excess of the Nil Rate Amount are for the tax year 6 April 2017 to 5 April 2018, 7.5% on dividend income within the basic rate of tax band, 32.5% on dividend income within the higher tax band and 38.1% on dividend income within the additional rate tax band.

Accordingly, the amount of such a Shareholder’s income tax liability (if any) as a result of receiving dividend income will depend on whether, after taking account of that dividend income, that individual Shareholder’s dividend income for the tax year in which the dividend income is received falls within the Nil Rate Amount, and if it does not do so, which tax band (or bands) that income falls within.

In determining the tax band in which any dividend income over the Nil Rate Amount falls, dividend income that is within the Nil Rate Amount is still taken into account. Savings and dividend income is treated as the highest part of a Shareholder’s income. Where a Shareholder has both savings and dividend income, the dividend income is treated as the top slice. Because dividend income counts towards an individual’s basic or higher rate limits (whether or not it falls within the Nil Rate Amount), the receipt of such income may also affect the amount of personal savings allowance to which the

individual is entitled.

If Israeli withholding tax has been deducted from a dividend paid by the Company to a UK resident shareholder, relief for the Israeli withholding tax may be available in the form of a credit against any UK income tax liability on the same dividend income. If available, the amount of Israeli tax allowed as a credit against the individual's UK income tax liability will be limited to what should be withheld in accordance with the UK-Israel Double Tax Treaty and it cannot exceed the UK income tax liability on the dividend.

Companies

Shareholders who are within the charge to UK corporation tax will be subjected to corporation tax on any dividend paid on their Shares, subject to any applicable credit for Israeli withholding tax, unless (subject to special rules for Shareholders that are small companies) the dividend falls within an exempt class and certain other conditions are met. The position of each corporate Shareholder will depend on its own individual circumstances. It would normally be expected that dividends paid on the Shares to such corporate Shareholder elects for an otherwise exempt dividend to be taxable, the Shareholder will be subject to UK corporation tax on dividends received from the Company. The main rate of corporation tax for financial year 2017/18 is 19% which is expected to decrease to 17% from 1 April 2020. Credit for any Israeli withholding tax suffered on the dividend may be available against such a UK corporation tax liability on the dividend. Shareholders within the charge to UK corporation tax are advised to seek specific tax advice on this when completing their UK corporation tax returns.

Taxation of disposals

Individuals

A disposal or deemed disposal of Shares by an individual Shareholder who is resident in the UK for tax purposes may, depending upon the Shareholder's circumstances and subject to any available exemption or relief, give rise to a chargeable gain or an allowable loss for the purposes of UK capital gains tax.

If an individual Shareholder incurs a liability to UK capital gains tax on the disposal or deemed disposal of Shares, the applicable rate will generally be ten per cent. (for 2017/2018) to the extent that the Shareholder's total chargeable gains and, generally total taxable income arising in a tax year, after all allowable deductions are less than the upper limit of the income tax basic rate band and 20% (for 2017/18) on any gains in excess of the income tax basic rate tax band. No indexation allowance will be available to an individual holder of Shares in respect of any disposal of Shares. However, an individual Shareholder may be entitled to realise gains in an amount equal to the annual exempt amount in each tax year without being liable to capital gains tax (which is £11,300 in the 2017/18 tax year).

A Shareholder who is an individual and who acquires the Shares whilst UK residents but subsequently ceases to be resident for tax purposes in the UK for a period of five years or less and who disposes or is deemed to dispose of the Shares during that period may be liable, on his return, to UK capital gains tax (subject to any available exemption or relief). Special rules apply to Shareholders who are subject to tax on a "split year" basis, who should seek specific professional advice if they are in any doubt about their position.

Shareholders who are not resident in the UK will not generally be subject to UK taxation of capital gains on the disposal or deemed disposal of Shares unless they are carrying on a trade, profession or vocation in the UK through a branch or agency (or, in the case of a corporate Shareholder, carrying on a trade in the UK through a permanent establishment) in connection with which the Shares are used, held or acquired, in which case they may be subject to UK taxation of capital gains.

Companies

For a Shareholder within the charge to UK corporation tax, a disposal (or deemed disposal) of the Shares may give rise to a chargeable gain or allowable loss for the purposes of UK corporation tax, depending on the Shareholder's circumstances and subject to any available exemption or relief. Indexation allowance may be available to reduce the amount of any chargeable gain realised but may not create or increase any allowable loss. The UK Government announced in the UK Autumn Budget that the indexation allowance will be frozen with effect from 31 December 2017. Draft legislation to put this measure into effect has been included in the draft Finance (No.2) Bill 2017-19 published on 1 December 2017. Shareholders should note that, as this measure has not been enacted, it may be subject to change, and it remains possible that it will not be enacted at all, or will be enacted at a

different time from that announced.

If a Shareholder within the charge to UK corporation tax incurs a liability to UK corporation tax on chargeable gains on the disposal or deemed disposal of Shares, the applicable rate will be 19% in respect of the financial year 2017/2018, which is expected to reduce to 17% from 1 April 2020.

Stamp duty and stamp duty reserve tax

No UK stamp duty or stamp duty reserve tax ("SDRT") should be payable on the issue of Shares or Depositary Interests. In practice, UK stamp duty should generally not need to be paid on an instrument transferring the Shares, provided that such instrument is executed and retained outside the UK and does not relate to any matter thing done, or to be done, in the UK.

No SDRT will be payable on any agreement to transfer Shares or Depositary Interest provided that the Shares are not (and do not become) registered in any register maintained in the UK by or on behalf of the Company and, in the case of Depositary Interests, provided further that the Company is not (and will not subsequently be) centrally managed and controlled in the UK and that the Shares will be (and will remain) listed on the Official List of the London Stock Exchange admitted to trading on its main market for listed securities.

PART 12

ADDITIONAL INFORMATION

1. Responsibility

The Directors whose names appear on page 24 and the Company accept responsibility for the information contained in this Document. To the best of the knowledge of the Directors and the Company (who have each taken all reasonable care to ensure that such is the case), the information contained in this Document is in accordance with the facts and contains no omission likely to affect its import.

2. The Company

- 2.1 The Company was incorporated on 6 January 1999 under the Israeli Companies Law with registered number 512726217 under the name Amply Sea's (A.T.M.) Ltd and as a registered private company, and changed its name to Shefa Yamim (A.T.M.) Ltd. on 1 August 2000.
- 2.2 The Company is subject to the Listing Rules and the Disclosure and Transparency Rules (and the resulting jurisdiction of the UK Listing Authority), to the extent such rules apply to companies with a Standard Listing pursuant to Chapter 14 of the Listing Rules.
- 2.3 The principal legislation under which the Company operates, and pursuant to which its shares which comprise the Shares have been created, is the Israeli Companies Act and the subordinate legislation made under it.
- 2.4 The Company's registered and head office is at 90 Herzl Street, P.O.Box 720, Netanya - 4210602, Israel. The Company's telephone number is +972 9 8331999.
- 2.5 During the period covered by the historical financial information and the unaudited interim accounts, the issued and outstanding share capital of the Company has remained at 9,387,600 Shares.

3. Share Capital

- 3.1 The following table shows the issued and fully paid shares of the Company immediately following Admission. All shares have a par value of NIS 1.00.

	Immediately following Admission	
	<i>Number</i>	<i>Nominal value</i>
On Admission (Enlarged Issued Share Capital)	13,905,056	NIS 13,905,056

- 3.2 Save as disclosed in this Document:

- 3.2.1 no share or loan capital of the Company has been issued or is proposed to be issued;
- 3.2.2 no person has any preferential subscription rights for any shares of the Company;
- 3.2.3 no share or loan capital of the Company is unconditionally to be put under option; or
- 3.2.4 no commissions, discounts, brokerages or other special terms have been granted by the Company since its incorporation in connection with the issue or sale of any share or loan capital of the Company.

- 3.3 The Shares will be listed on the Official List and will be traded on the standard segment of the Main Market. The Shares are not listed or traded on, and no application has been or is being made for the admission of the Shares to listing or trading on, any other stock exchange or securities market.

4. Warrants

Warrants issued as part of the Converted Debt Shares as outlined on page 54 in Part 7 – ‘Share Capital and Capitalisation’:

- 138,411 warrants in relation to convertible loans of NIS 584,000 (US\$ 160,000), see Note 3b of Part 9 – ‘Unaudited Interim Accounts’
- 2,255,427 warrants in relation to convertible loans of NIS 3,110,000 (US\$ 890,000), see Note 3c of Part 9 – ‘Unaudited Interim Accounts’
- 2,945,398 warrants in relation to a convertible loan of NIS 12,236,000 (US\$ 3,500,000), see Note 3c of Part 9 – ‘Unaudited Interim Accounts’
- 137,843 warrants in relation to convertible loans of NIS 566,000 (US\$ 162,000), see Note 3c of Part 9 – ‘Unaudited Interim Accounts’
- 962,568 warrants in relation to the related party debt of NIS 1,365,000 (US\$ 390,000) see Note 3d of Part 9 – ‘Unaudited Interim Accounts’

Other warrants issued:

- 22,728 warrants each to Michael Rosenberg and James Campbell exercisable at the Subscription Price any time before 18 June 2019
- 104,228 warrants to corporate advisers exercisable at the Subscription Price any time before 18 June 2019

5. Articles of Association of the Company

Set out below is a summary of the provisions of the Articles of Association. A copy of the Articles is available for inspection at the address specified in paragraph 2.4 of this Part 12 and at the Company’s website www.shefayamim.com.

5.1 Voting

At a general meeting, every Shareholder present in person or by proxy has one vote for every share held, provided that such Shareholder has paid all calls and other sums then payable by him in respect of his Shares.

On a poll, every Shareholder who is entitled to vote on the resolution has one vote for every share held. A shareholder entitled to more than one vote does not need to cast all his votes in the same way.

If two or more persons are registered as joint holders of any Share, the vote of the senior who tenders a vote shall be accepted to the exclusion of the vote(s) of the other joint holder(s). Seniority shall be determined by the order of registration of the joint holders in the Shareholder register.

5.2 Dividends

Subject to the Companies Law, the Board may declare, and cause the Company to pay, such dividend as may appear to the Board to be appropriate. Subject to the Companies Law, the Board shall determine the time for payment of such dividends, and the record date for determining the Shareholders entitled thereto.

Subject to the Articles of Association and to the rights of the Shareholders with special rights as to dividends, any dividend paid by the Company shall be allocated among Shareholders entitled thereto according to the proportion of the nominal value paid up on account of the shares held at the date so appointed by the Company.

5.3 Transfer of Shares

No transfer of Shares shall be registered unless a proper written instrument of transfer satisfactory to the Board has been submitted to the Company. Until the transferee has been registered in the Shareholder register in respect of the Shares so transferred, the Company may continue to regard the transferor as the owner thereof.

The Board may, in its discretion to the extent it deems necessary, close the Shareholder register for registrations of transfers of Shares for a period determined by the Board, and no

registrations of transfers of Shares shall be made by the Company during any such period during which the Shareholder register is so closed.

5.4 **General meetings**

An Annual General Meeting shall be held once in every calendar year at such time (within a period of not more than fifteen (15) months after the last preceding Annual General Meeting) and at such place as may be determined by the Board; provided, however, that for so long as any shares of the Company are listed and/or traded solely on an exchange market of the type listed in the Articles and located in the United Kingdom, all Annual General Meetings shall be held within the United Kingdom.

Subject to the provisions of the Companies Law, the Company is required to give Shareholders at least twenty-one (21) days' prior notice, or thirty-five (35) days' prior notice to the extent required under regulations promulgated under the Companies Law, of a meeting of Shareholders. Each Shareholder is entitled to receive notice of, attend and vote at General Meetings of the Company and to receive all notices required to be sent to Shareholders under the Companies Law and Articles.

A quorum for a General Meeting is two (2) Shareholders present in person or by proxy and holding shares conferring in the aggregate twenty-five (25) per cent of the voting power of the Company. If a quorum is not present in thirty (30) minutes after the time set for a General Meeting, the meeting: (1) if convened upon requisition of Shareholders, is cancelled; and (2) in any other case, is adjourned to the same time and place in seven days, or to such day, time and place as determined by the Chairman of the Board. If no quorum is present at the resumed meeting within 30 minutes after the time set for the meeting, the quorum shall be reduced to one or more Shareholders present in person or by proxy holding shares conferring at least (a) five per cent (5%) of voting rights of the Company or (b) one per cent. (1%) of the voting rights in the Company in tandem with at least five per cent (5%) of the Company's issued and outstanding share capital.

Any Shareholder or Shareholders of the Company holding at least one per cent. (1%) of the voting rights of the Company may request, subject to the Companies Law, that the Board of Directors include a matter on the agenda of a General Meeting to be held in the future, provided that the Board determines that the matter is appropriate to be considered at a General Meeting.

5.5 **Borrowing Powers**

Subject to the Articles, the Board may from time to time, at its discretion, cause the Company to borrow or secure the payment of any sum or sums of money for the purposes of the Company, which may be secured or repaid, at such times and upon such terms and conditions as it deems fit, and, in particular, by the issuance of bonds, or other securities specified in the Articles, on the undertaking or the whole or any part of the property of the Company, both present and future, including its uncalled or called but unpaid capital for the time being.

The Board shall restrict the borrowings of the Company and exercise all voting and other rights or powers of control exercisable by the Company in relation to its subsidiaries (if any) so as to secure that the aggregate principal amount outstanding at any time in respect of all borrowings of the group (except for any group company's borrowings which are owed to another group company) less cash deposited will not, without the previous sanction of the Company in General Meeting, exceed:

- a. 2 x Earnings Before Interest, Tax, Depreciation and Amortization ("EBITDA") as set out in the audited accounts of the Company for the last financial year; or
- b. any higher limited fixed by a resolution of the Shareholders which is applicable at the relevant time.
 - i. The limit imposed under paragraph a. above shall be deemed not to have been breached until the amount of borrowings has exceeded that limit for 30 consecutive days.
 - ii. A certificate or report by the Company's auditors: (a) as to the level of EBITDA or the amount of borrowings; or (b) to the effect that the limit imposed

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under Article 32(b)(i) was not exceeded or breached at a particular date; shall be conclusive evidence as to that amount or fact.

iii. No lender or other person dealing with any Group company need enquire whether the limit imposed under section 1.b(i) above has been or will be complied with.

iv. A borrowing or security resulting in a breach of the limit in section 1.b(i) shall not be void; nor shall it be voidable at the instance of the Company or any other Group company.

5.6 **Uncertificated Shares**

The Board is authorized to make such arrangements as it may think fit in order to enable shares in the Company to be represented by and exchanged for depositary interests which are eligible to be held and transferred in uncertificated form in a computer-based system whether located in the State of Israel or in any other country. Any such arrangements shall be notified to the shareholders in such manner as the Board may decide.

6. **Directorships and Partnerships**

In addition to their directorships of the Company, the Directors are, or have been, members of the administrative, management or supervisory bodies ("directorships") or partners of the following companies or partnerships, at any time in the five years prior to the date of this Document.

Abraham 'Avi' Taub (Chief Executive Officer and Executive Chairman)

Current directorships and partnerships

101 Gold Holding Ltd.

Former directorships and partnerships

Shefa Yamim Ltd.*

Hanoch Ehrlich

Current directorships and partnerships

Ehrlich Dotan
Hanoch Ehrlich & Co.

Former directorships and partnerships

None

David Nachson (Non-Executive Director)

Current directorships and partnerships

101 Gold holding Ltd
Chabad Jewish Mobil Mitzva Center
Chabad Youth Movement Tzivos Hashem
Chabad Educational Institutions of Upper Nazareth
Jewish Community Institutions in Kiev, Ukraine

Former directorships and partnerships

Shefa Yamim Ltd.*

Gershon Frankel (Independent Non-executive Director)

Current directorships and partnerships

Mediamile Ltd.
WST Charity Ltd.

Former directorships and partnerships

None

James Campbell (Independent Non-Executive Director)

Current directorships and partnerships

Botswana Diamonds plc
Common Purpose SA NPC
Joburg ballet NPC
Razorbill Properties Pty Ltd
South African Ballet Theatre Trust
Vutomi Mining Pty Ltd.

Former directorships and partnerships

Rockwell Diamonds
South African Subsidiaries of RDI

Michael Rosenberg, OBE (Independent Non-Executive Director)

Current directorships and partnerships

Alternateport Limited
Amsterdam Food Centre Limited
Catalyst Media Group Plc.
Catalyst Media Holdings Limited
David Paradine
David Paradine Co-Productions
David Paradine Productions Ltd.
David Frost Enterprises
D.F. (Overseas) Ltd.
Discovery Productions Ltd
Eastkings Limited
Glebe Music Company Ltd
Ion Pacific UK Limited
Montrose Securities Ltd.
Montrose Ventures Ltd.
Paradine Co-Productions Ltd.
SRK Ventures Ltd. (HK)
Starcom Plc
Tele-Circuit Ltd.
Umedco (Far East) Ltd (HK)

Former directorships and partnerships

Amiad Filtration Systems Limited
Boomerang Media Ltd.
Dori Media Group Ltd.
Magnet Films Limited
Pilat Media Global Plc.
Photon Kathaas Productions Limited
Spoof.com Limited
Talsarn Investments Ltd.

Nathalie Schwarz (Independent Non-Executive Director)

Current directorships and partnerships

Wilmington Group Plc

Former directorships and partnerships

Matomy Media Plc
Photon Kathaas Productions Limited

*Mr Avi Taub and David Nachson will resign as directors of Shefa Yamim Ltd. with effect from Admission.

7. Directors' Confirmations

- 7.1 Save as disclosed in this Document at paragraphs 7.2 and 7.3 of this Part 12 – 'Additional Information', within the period of five years preceding the date of this Prospectus, no Director:
- 7.1.1 has any convictions in relation to fraudulent offences for at least the previous five years;
 - 7.1.2 has been associated with any bankruptcy, receivership or liquidation while acting in the capacity of a member of the administrative, management or supervisory body or of senior manager of any company for at least the previous five years; or
 - 7.1.3 has been subject to any official public incrimination and/or sanction of him by any statutory or regulatory authority (including any designated professional bodies) or has ever been disqualified by a court from acting as a director of a company or from acting as a member of the administrative, management or supervisory bodies of an issuer or from acting in the management or conduct of the affairs of any issuer for at least the previous five years.
- 7.2 Avi Taub was a director of N.D.C. Group from 1980 to 1993. In 1993, a major US customer of five subsidiaries of the group was declared bankrupt and owed the group US\$32 million. The five subsidiaries were unable to reclaim the amount owed to them and were put into receivership.
- 7.3 James Campbell was chief executive officer of Rockwell Diamonds from 1 June 2011 until 31 August 2016. Three South African subsidiaries of Rockwell Diamonds, being HC van Wyk Pty Ltd, Rockwell Resources Pty Ltd and Saxendrift Mine Pty Ltd applied for voluntary Business Rescue on 24 May 2017.

8. Directors' Interests

- 8.1 Save as disclosed below, none of the Directors, nor any member of their immediate families has or will have on or following Admission any interests (beneficial or non-beneficial) in the shares of the Company.

<i>Director</i>	Immediately prior to Admission		Immediately following Admission	
	<i>No. of Shares</i>	<i>Percentage of Issued Shares</i>	<i>No. of Shares</i>	<i>Percentage of Enlarged Issued Share Capital</i>
Avi Taub	-	-	-	-
Michael Rosenberg*	-	-	22,728	0.16%
James Campbell *	-	-	22,728	0.16%
Nathalie Schwarz	-	-	-	-
David Nachson	-	-	-	-
Gershon Frankel	5,000	0.05%-	5,000	0.04%
Hanoch Ehrlich	-	-	-	-

*James Campbell and Michael Rosenberg each subscribed for 22,728 Shares in the Subscription

9. Directors' Contracts

9.1 Executive Directors

Abraham 'Avi' Taub

Avi Taub (personally or through a management company, fully guaranteed by him) entered into a management services agreement with the Company as chief executive officer on 23 July 2017, for an initial term of three years (commencing on 1 January 2017), terminable at any time on three months' notice by either side. Mr Taub is paid a monthly fee of NIS 70,000 (plus VAT, as applicable) linked to the Israeli CPI and will also receive certain customary benefits-in-kind, including a company car, and a mobile phone in accordance with Israeli labour laws. In addition, the Company reimburses, Mr Taub (or the management company, as the case may be) for all reasonable and properly documented travel, hotel, and other incidental expenses incurred in the performance of his duties as chief executive director. Mr Avi Taub will be appointed as Chief Executive Officer and Executive Chairman from Admission.

9.2 Non-Executive Directors

David Nachson

For services as an independent non-executive director of the Company, David Nachson is paid NIS 26,000 per annum, a per meeting fee of NIS 620 for any board or committee meeting attended (including via remote communication) and a fee of NIS 372 per written consent of the board or a committee thereof. In addition, the Company reimburses, Mr Nachson for all reasonable and properly documented travel, hotel, and other incidental expenses incurred in the performance of his duties as non-executive director. Mr Nachson's appointment is for an initial term of one year commencing on Admission.

Gershon Fraenkel

For services as an independent non-executive director of the Company, Gershon Fraenkel is paid NIS 26,000 per annum, a per meeting fee of NIS 620 for any board or committee meeting attended (including via remote communication) and a fee of NIS 372 per written consent of the board or a committee thereof. In addition, the Company reimburses, Mr Frankel for all reasonable and properly documented travel, hotel, and other incidental expenses incurred in the performance of his duties as non-executive director. Mr Fraenkel's appointment is for an initial term of one year commencing on Admission.

Hanoch Ehrlich

For services as an independent non-executive director of the Company, Hanoch Ehrlich is paid NIS 26,000 per annum, a per meeting fee of NIS 620 for any board meeting or committee meeting attended (including via remote communication) and a fee of NIS 372 per written consent of the board or a committee thereof. In addition, the Company reimburses Mr Ehrlich for all reasonable and properly documented travel, hotel, and other incidental expenses incurred in the performance of his duties as non-executive director. Mr Ehrlich's appointment is for an initial term of one year commencing on Admission.

Termination of office

Each non-executive director will serve until the next annual general meeting following his or her election and his or her successor is duly elected and qualified or until his or her earlier death, resignation or removal by a vote of the majority voting power of the Company's shareholders at a general meeting of the Company's shareholders or until his or her office expires by operation of law.

9.3 External Non-Executive Directors

Michael Rosenberg, OBE

For services as an external independent non-executive director of the Company, Michael Rosenberg is paid an annual fee of £20,000 gross. In addition, Mr Rosenberg is paid £860 for each face-to-face board meeting attended, sixty per cent. (60%) of such amount for scheduled board calls and fifty per cent. (50%) of such amount for signing written resolutions of the Board. The Company reimburses Michael Rosenberg for all reasonable and properly documented travel, hotel and other incidental expenses incurred in the performance of his duties as an external independent non-executive director. Mr Rosenberg's appointment is for an initial term of three years commencing on Admission.

James Campbell

For services as an external independent non-executive director of the Company, James Campbell is paid an annual fee of £20,000 gross. In addition, Mr Campbell is paid a further £860 for each face-to-face board meeting attended, sixty per cent. (60%) of such amount for scheduled board calls and fifty per cent. (50%) of such amount for signing written resolutions of the Board. The Company reimburses James Campbell for all reasonable and properly documented travel, hotel and other incidental expenses incurred in the performance of his duties as an external independent non-executive director. Mr Campbell's appointment is for an initial term of three years commencing on Admission.

Nathalie Schwarz

For services as an external independent non-executive director of the Company, Nathalie Schwarz is paid an annual fee of £20,000 gross. In addition, Ms Schwarz is paid £860 for each face-to-face board meeting attended, sixty per cent. (60%) of such amount for scheduled board calls and fifty per cent. (50%) of such amount for signing written resolutions of the Board. The Company reimburses Nathalie Schwarz for all reasonable and properly documented travel, hotel and other incidental expenses incurred in the performance of her duties as an external independent non-executive director. Ms Schwarz's appointment is for an initial term of three years commencing on Admission.

Termination of office

External directors may be removed from office by a special general meeting of shareholders called by the board of directors, which approves such dismissal by the same shareholder vote percentage required for their election or by a court, in each case, only under limited circumstances, including ceasing to meet the statutory qualifications for appointment, or violating their duty of loyalty to the Company.

10. Major Shareholders and Other Interests

- 10.1 As at 11 December 2017 (being the latest practicable date prior to the publication of this Document), the following person had a notifiable interest (being more than three per cent. of the voting rights) in the issued Shares of the Company, and also following Admission:

Shareholders	Immediately prior to Admission		Immediately following Admission	
	No. of Shares	Percentage of Existing Shares	No. of Shares	Percentage of Enlarged Issued Share Capital
Shefa Yamim Ltd.	7,040,700	75.00%	6,800,442	48.91%
Yosef Izhack Taub	420,000	4.47%	420,000	3.02%
Michael Zeller	20,000	0.21%	487,429	3.51%
BH 26 Investments	-	-	625,000	4.49%
EOM Investments Limited	-	-	665,000	4.78%
GEM Capital Limited	-	-	675,000	4.85%
Hafia Investments Limited	-	-	670,000	4.82%

- 10.2 As at 11 December 2017 (being the latest practicable date prior to the publication of this Document), save as disclosed in paragraph 10.1 of this Part 12 – ‘*Additional information*’, the Company was not aware of any person or persons who, directly or indirectly, jointly or severally, exercise or could exercise control over the Company nor is it aware of any arrangements, the operation of which may at a subsequent date result in a change in control of the Company.
- 10.3 No Shareholder interested, directly or indirectly, in three per cent. or more of the Enlarged Issued Share Capital will have different voting rights from any other holder of Shares.

11. Pension Arrangements

Israeli labour laws govern the length of the workday, minimum wages for employees, procedures for hiring and dismissing employees, determination of severance pay, annual leave, sick days, advance notice of termination of employment, equal opportunity and antidiscrimination laws and other conditions of employment. Subject to specified exceptions, Israeli law generally requires severance pay upon the retirement, death or dismissal of an employee, and requires the Company and its employees to make payments to the National Insurance Institute. Our employees have defined benefit pension plans that comply with the applicable Israeli legal requirements.

The Company’s obligation to make pension payments is covered by regular deposits with defined contribution plans. The amounts deposited are not reflected in the statements of financial position in the Company’s working capital.

12. Working Capital

The Company is of the opinion that it has sufficient working capital, taking into account the Net Proceeds from the Subscription and the Converted Debt, for its present requirements, that is for at least 12 months from the date of this Document

13. Significant Change

Save for the conversion of the Company’s debt to equity as outlined on page 54 of Part 7 – ‘*Share Capital and Capitalisation*’, which will decrease liabilities by NIS 17,737,000 in the Company there has been no significant change in the trading or financial position of the Company since 30 June 2017, being the date as at which the financial information contained in Part 9 - ‘*Unaudited Interim Accountant’s Report*’.

14. Litigation

There have been no governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which the Company is aware), during the previous 12 months which may have, or have had in the recent past, a significant effect on the Company’s financial position or profitability.

15. Mandatory Bids, Squeeze Out And Sell Out Rules Relating to the Ordinary Shares

As the Company is incorporated in Israel, it is subject to Israeli law and the Takeover Code will not apply to the Company, except to the extent share control limits are incorporated into the Articles, as described in paragraph 15.1 of this Part 12.

Israeli Companies Law permits merger transactions, provided that each party to the transaction obtains the approval of its board of directors and shareholders (excluding certain merger transactions which do not require the approval of the shareholders, as set forth in the Companies Law). For the purposes of the shareholder vote of each party, the merger will not be deemed approved if a majority of the shares not held by the other party, or by any person who holds 25% or more of the shares or the right to appoint 25% or more of the directors of the other party, has voted against the merger.

Israeli Companies Law requires the parties to a proposed merger to file a merger proposal with the Israeli Registrar of Companies, specifying certain terms of the transaction. Each merging company's board of directors and shareholders must approve the merger. Shares in one of the merging companies held by the other merging company or certain of its affiliates are disenfranchised for the purposes of voting on the merger. A merging company must inform its creditors of the proposed merger. Any creditor of a party to the merger may seek a court order blocking the merger, if there is a reasonable concern that the surviving company will not be able to satisfy all of the obligations of the parties to the merger. Moreover, a merger may not be completed until at least 50 days have passed from the time that the merger proposal was filed with the Israeli Registrar of Companies and at least 30 days have passed from the approval of the shareholders of each of the merging companies.

In addition, the provisions of the Israeli Companies Law that deal with "arrangements" between a company and its shareholders may be used to effect squeeze-out transactions in which the target company becomes a wholly-owned subsidiary of the acquirer. These provisions generally require that the merger be approved by a majority of the participating shareholders holding at least 75% of the shares voted on the matter, as well as 75% of each class of creditors. In addition to shareholder approval, court approval of the transaction is required.

15.1 Articles and Special Tender Offer

The Israeli law prohibits i) a person acquiring shares, whether by himself or in concert, which, when aggregated with Shares held by his concert parties, carry 25% or more of the voting rights attributable to the shares of the Company if there is no other person holding when aggregated with shares held by his concert parties, 25% or more of the voting rights attributable to the shares of the Company, and ii) a person acquiring shares, whether by himself or in concert, which, when aggregated with shares held by his concert parties, carry 45% or more of the voting rights attributable to the shares of the Company, if there is no other person holding when aggregated with shares held by his concert parties, 45% or more of the voting rights attributable to the shares of the Company, except as a result of a "permitted acquisition". An acquisition is a "permitted acquisition" if the acquisition is made in compliance with any applicable tender offer rules under the Israeli Companies Law as may be in effect at such time.

The Israeli Companies Law provides that an acquisition of shares of a public Israeli company must be made by means of a special tender offer if as a result of the acquisition the purchaser could become a holder of 25% or more of the voting rights in the Company. This rule does not apply if there is already another holder of at least 25% of the voting rights in the Company.

Similarly, the Israeli Companies Law provides that an acquisition of shares in a public company must be made by means of a tender offer if as a result of the acquisition the purchaser could become a holder of more than 45% of the voting rights in the company, if there is no other shareholder of the company who holds more than 45% of the voting rights in the company.

A special tender offer must be extended to all shareholders of a company but the offeror is not required to purchase shares representing more than 5% of the voting power attached to

the Company's outstanding shares, regardless of how many shares are tendered by shareholders. A special tender offer may be consummated only if (i) at least 5% of the voting power attached to the Company's outstanding shares will be acquired by the offeror and (ii) the number of shares tendered in the offer exceeds the number of shares whose holders objected to the offer.

If a special tender offer is accepted, then the purchaser or any person or entity controlling it or under common control with the purchaser or such controlling person or entity may not make a subsequent tender offer for the purchase of shares of the target company and may not enter into a merger with the target company for a period of one year from the date of the offer, unless the purchaser or such person or entity undertook to effect such an offer or merger in the initial special tender offer.

Shares that are acquired in violation of this requirement to make a tender offer will be deemed "dormant shares" and will have no rights whatsoever for so long as they are held by the acquirer.

15.2 Full Tender Offer

Under the Israeli Companies Law, a person may not purchase shares of a public company if, following the purchase, the purchaser would hold more than 90% of the Company's shares or of any class of shares, unless the purchaser makes a tender offer to purchase all of the target company's shares or all the shares of the particular class, as applicable. If, as a result of the tender offer, either:

- (i) the purchaser acquires more than 95% of the Company's shares or a particular class of shares and a majority of the shareholders that did not have a personal interest accepted the offer; or
- (ii) the purchaser acquires more than 98% of the company's shares or a particular class of shares;

then, the Israeli Companies Law provides that the purchaser automatically acquires ownership of the remaining shares. However, if the purchaser is unable to purchase more than 95% or 98%, as applicable, of the Company's shares or class of shares, the purchaser may not own more than 90% of the shares or class of shares of the target company.

16. Material Contracts of the Company

The following are all of the contracts (not being contracts entered into in the ordinary course of business) that have been entered into by the Company in the two years immediately preceding the date of this Document which: (i) are, or may be, material to the Company; or (ii) contain obligations or entitlements which are, or may be, material to the Company as at the date of this Document.

16.1 Exploration Permit

An exploration permit grants its holder an exclusive right to explore the area designated in the permit. An exploration permit may cover an area of up to 500km² and is valid for a two-year period. The holder of an exploration permit is required to employ skilled geologists and other trained individuals who are approved by the Inspector and have been hired to explore, in accordance with the general guidelines published periodically by the Inspector, rocks, minerals, ground and water supply in the area in accordance with the Inspector's opinion and to provide reports, maps or other information as requested.

The Inspector may revoke an exploration permit, in full or in part, without any compensation accruing to the permit holder, where the Inspector determines that the exploration permit holder does not survey the area with the appropriate diligence and skill, as required by the Ordinance and the Inspector's instructions.

Currently, the Company obtained an exclusive exploration permit #869B7 that included an area of 42,969 acres that is valid until 5 June 2018. There is no specific limitation on the amount of times the exploration permit can be renewed. The cost for renewal of the last exploration permit was NIS 16,790.

16.2 **Prospecting Permit**

A prospecting permit grants to its holder the right to enter any area included in the permit, in order to ascertain the presence or absence of minerals in the area and to dig pits for that purpose, up to two metres deep, except where special permission is granted by the Inspector. A prospecting permit holder is not allowed to drill or undertake any other measures intended to or directly resulting in the extraction of minerals. The permit does not grant exclusive rights to its holder, both in respect to the area and to minerals defined therein, which may be sought. The prospecting permit is valid for an initial twelve month period and may then be renewed for an unlimited amount of times, subject to terms and conditions to be determined, where renewal will not be unnecessarily delayed. Additionally, the prospecting permit is not transferable.

Currently, the Company holds two prospecting permits: Prospecting permit #837A10 that encompasses an inclusive area of 327,551 dunam (approximately 328 km²) that is valid until 20 December 2017 and Prospecting permit #899A5 that encompasses an area of approximately 112,904 dunam (approximately 113km²) that is valid until 20 December 2017.

Once a prospecting permit has been renewed, it may be renewed without limitation in the same manner and under the same terms and conditions.

The costs for the renewal of prospecting permit 837A10 and 899A5 were NIS 8,620 and NIS 5,740 respectively.

16.3 **Lock-in agreement**

The Directors, VSA, the Parent Company, 101 Gold Holdings Limited, Eight-O-eight Global Corp. and the Company have entered into a lock-in agreement pursuant to which each of the Directors and the Parent Company have agreed that for a 12 month period from Admission they will not offer, sell, contract to sell, pledge or otherwise dispose of any Shares which they hold directly or indirectly in the Company. These restrictions are subject to usual and customary exceptions relating to estate planning or transfers to affiliates, transfers of any Shares acquired in an open market transaction after the date of Admission, or acceptance of a general offer made to all Shareholders on equal terms. In the event any of the Directors or the Parent Company intends to dispose of any of his /its interests in the Shares during the 12 month period following the Lock-in Period, such disposal shall only be conducted with the approval and through VSA; and only if VSA is of the opinion that such disposal would not give rise to a disorderly market in the Shares (subject to certain exceptions).

16.4 **Relationship Agreement**

The Company, VSA, and the Parent Company, entered into a Relationship Agreement on 11 December 2017 to regulate the relationship between the Company and the Parent Company with effect from Admission. The Relationship Agreement contains customary terms and conditions relating to the Parent Company's significant shareholding in the Company. Further details on the terms of the Relationship Agreement are detailed in Part 4 – '*Board and Corporate Governance*'.

16.5 **DI Deed Poll**

The directors of the Company will be required to enter into arrangements by way of a DI Deed Poll to enable Shares to be represented by, and exchanged for, depositary interests which are eligible to be held and transferred in uncertificated form in a computer based system. The terms of such arrangements are set out in Part 6 – '*The Subscription*' of this Document, subject to limitations of liability.

16.6 **VSA Engagement Letter**

By way of an engagement letter dated 20 September 2016, the company appointed VSA as exclusive Financial Adviser and Corporate Broker to the Company in connection with Admission. Pursuant to the engagement, the Company agreed to pay VSA fees amounting to £160,000.

The Company also agreed to enter into the Retained Financial Adviser and Corporate Broker Agreement (the terms of which are summarised in paragraph 16.7 below).

16.7 **Retained Financial Adviser and Corporate Broker Agreement**

The Company and VSA entered into a Retained Financial Adviser and Corporate Broker Agreement on 20 September 2016, pursuant to which VSA has agreed to act as the Company's retained financial adviser and corporate broker from the date of Admission. Under the agreement, the Company agreed to pay VSA an annual fee of £30,000 (payable half yearly in advance).

The agreement shall continue for a minimum twelve (12) month period and can be terminated by either party giving the other party three (3) months written notice.

16.8 **Introduction Agreement**

An Introduction Agreement has been entered into by the Company, VSA Capital and the Directors. The Company and each of the Directors have given warranties to VSA concerning *inter alia* the accuracies of certain information in this Document, subject to limitation of liability.

16.9 **Majimba Geo Consulting**

On 9 May 2010, the Company entered into an agreement with Majimba Geo Consulting cc (Majimba), a South African registered closed corporation which offers geological consulting services, with a particular focus on diamond exploration and evaluation. The services are provided by Dr Mike de Wit, Dr John Ward and Mr Renato Spaggiari, all of whom have careers in the field of around 30 years. The agreement sets out the scope of the services to be provided to the Company whilst Avi Taub and Vered Toledo are involved with the Company, which include the design, development, and quality control of the exploration of the Company project areas; the development of geological and mineralisation models; liaising where necessary to implement geological surveys; and to investigate other geological parameters. The agreement stipulates that Majimba will dedicate approximately 3 days per month to consulting services depending on the amount of work required. A major review will also be undertaken once a year. The cost of services is charged at 700USD/ day outside of South Africa and 400USD/day in South Africa.

16.10 **Agreement Memorandum with Kibbutz Yagur**

On August 13, 2000, the Company signed a memorandum of understanding with Kibbutz Yagur, according to which the Company is entitled to conduct excavations and drillings in the land leased by the Kibbutz from the Israel Land Administration.

The Company has not initiated any work in Kibbutz Yagur thus far, and it is uncertain that it will at all. In the event it does, the Company would have to pay operational fees in case of any exploration activities of USD 2000, exclusive of VAT, payable in NIS in advance.

The Company represents that all activities shall be done with the consent of the Israeli Land Authorities ("ILA") and Kibbutz Yagur and the works will be carried out within the scope of the permits and licenses granted by the authorities and subject to applicable law. The work will be done by the Company at its own expense and liability, with due care, caution & skill and according to safety rules required by law. All damage caused by the Company shall be the responsibility and liability of the Company. The Company will drill and explore at the places agreed and may examine the possibilities regarding the existence of minerals.

Mining fees: upon the Company receiving the applicable mining permits, Kibbutz Yagur may choose to receive compensation in one of two alternatives: (1) Long-Term Lease: under the long-term lease, the Company may lease the fields for not more than 25 years and will repay Kibbutz Yagur the leasing fees payable by the Kibbutz to the ILA on a back-to-back basis. In addition, the Company will pay Kibbutz Yagur 3% of the turnover received from sales of ore

extracted in the lands under the Kibbutz control, at not less than USD 500 per 1/10 hectare per year; or (2) Lands in exchange for Company shares: subject to an IPO by the Company, the Company will issue or allot to Kibbutz Yagur Shares in an amount which will reflect the value of the rights the Company had in Kibbutz Yagur's lands prior to the discovery of ore. Such value is to be determined via negotiation by the parties. Were such negotiation to fail, the parties may agree to appoint an appraiser or two appraisers (one for each party) which in turn will appoint a third definitive appraiser, provided, however, that the final appraisal amount will not be less than an amount receivable if such appraisal was conducted by the land authorities or the government. It is noted that the ownership of mining rights will remain with the Company and will be excluded from such appraisal.

In case production of ore causes the Kibbutz damage to its adjacent land, the Company will, at the Kibbutz's discretion (1) indemnify Kibbutz Yagur for such damages caused by the production of ore; or (2) lease such adjacent lands in a price which will be determined by the appraisal mechanism described above.

17. Property, Plant and Equipment

The Company's main assets are its prospecting and exploration permits. Further details of which are contained in paragraph 16.1 and 16.2 of this Part 12 of this Document.

The Company also owns equipment which, as detailed below, is stored at the operational site in Akko and is owned by the Company:

- (i) Hanger/Yard - Water-recycled separation system – capacity of 50 cube per hour;
- (ii) Hanger - 2 lines of Jig's including Hoppers, classifiers and conveyors;
- (iii) Hanger/Yard - Scrubber, including a hooper and classifiers;
- (iv) Operational site Laboratories: microscopes, computers, weights capable of weighing diamonds and minerals.

As these systems have limited capacity, approximately NIS 1.1 million of the Company's next budget is reserved for owned machinery upgrades as well as for purchases of new machines. In addition to the owned machinery, the Company may lease drilling or trenching equipment and services from an outside contractor to perform ad hoc work in accordance with predefined and time limited work plans.

17.1 Rental Agreement

On January 9, 2011 the Company signed a rental agreement with S.L.M.A.C. Ltd. (the "Lessor") (a company that is not an interested party of the Company's controlling interest) whereby the Company will rent a building on an area of approximately 970 sq. m. and a yard that is approximately 4,000 sq. m. located in the industrial zone of southern Akko, Israel, that will serve as the operational centre of the Company (the "plant"). The monthly rental fees are in the amount of NIS 20,500 (with the addition of VAT and linked to the Consumer Price Index).

The initial rental period was from January 2, 2011 until December 31, 2013 (the "rental period"). In addition, it was agreed that the Company has an option to extend the rental period for four consecutive additional periods, each of 36 months durations, commencing with the end of the rental period, when the option becomes valid, subject to the terms of the agreement with the rental fees increasing by 5% commencing with the second option.

The operating area serves the Company for processing the raw materials it produces, for performing rinsing procedures, for straining, storage, and other related operations. As of the reported period, Avi Taub has personally guaranteed the Company's liabilities in accordance with the rental agreement, which will be nullified if and when the Company's share capital is listed on a stock exchange.

Concurrently, on June 16, 2013 the Company and the Lessor signed an additional rental agreement abovementioned, whereby the Company will rent from the lessor a lot that is approximately 850m², adjacent to the operating area and that will serve as the storehouse for soil samples, in return for consideration of minimal additional rental fees. We note that the lessor is proceeding with receiving building rights for the additional area, and the Company obligated that following receipt of a building permit for construction on the additional area,

the lessor will render the entire area, subject to receipt of a warning in writing thirty days prior to date of commencement of construction. We also note that the Company has the first right of refusal for renting the building that will be built on the additional area.

18. Related Party Transactions

Save for the related party transactions set out in Part 8 – '*Historical Financial Information*' and Part 9 - '*Unaudited Interim Results*' and the Converted Debt Shares that will be issued on Admission, as outlined in Part 7 – '*Share Capital and Capitalisation*', there are no related party transactions that were entered into by the Company during the financial years ended 31 December 2014, 31 December 2015, 31 December 2016 and the six months period ended 30 June 2017 and up to and including the date of this document.

19. Accounts and Annual General Meetings

The Company's annual report and accounts are made up to 31 December in each year, with the first annual report and accounts of the Company following Admission covering the period from 1 January 2016 to 31 December 2017. The Company's annual report and accounts for the year ended 31 December 2017 will be made public no later than 31 March 2018.

The Company will make public its annual report and accounts within four months of each financial year end (or earlier if possible) and copies of the Company's annual report and accounts will be sent to Shareholders within six months of each financial year end (or earlier if possible). The Company will prepare its unaudited interim report for each six month period ending 30 June. It is expected that the Company will make public its unaudited interim reports within two months of the end of each interim period.

The Company shall hold its next annual general meeting in May 2018.

20. General

- 20.1 Barzily & Co., whose address is 19 Hartom Har Hotzvim 97775, Israel, is the auditor of the Company. Barzily & Co. is registered to carry out audit work by the Ministry of Justice of Israel. They are also approved by the Public Company Accounting Oversight Board (PCAOB), a non-profit corporation established by the US Congress to oversee the audits of public companies.
- 20.2 Barzily & Co. has given and has not withdrawn its consent to the inclusion in this Document of its accountant's report in Part 8 - '*Historical Financial Information of the Company*' and in the form and context in which they are included and has authorised the contents of each of those reports for the purposes of Rule 5.5.3R(2)(f) of the Prospectus Rules.
- 20.3 Creo Design (Pty) Ltd (in its capacity as competent person) has given and not withdrawn its written consent to the inclusion in this Document of the Competent Person's Report in the form and context which it is included, and has authorised the contents of such parts of this Document as comprise the Competent Person's Report for the purposes of Rule 5.5.3R(2)(f) of the Prospectus Rules.
- 20.4 The total expenses incurred (or to be incurred) by the Company in connection with Admission and the Subscription are approximately £0.76 million. The estimated Net Proceeds, after deducting fees and expenses in connection with the Admission and Subscription, are approximately £3.39 million.

21. Availability of this Document

- 21.1 Following Admission, copies of this Document may be collected, free of charge during normal business hours, from VSA Capital Limited, New Liverpool House, 15-17 Eldon Street, London, EC2M 7LD and the Company's registered office at 90 Herzl Street, P.O.Box 720, Netanya - 4210602, Israel
- 21.2 In addition, this Document will be published in electronic form and be available on the Company's website at www.shefayamim.com, subject to certain access restrictions applicable to persons located or resident outside the United Kingdom.

Dated: 12 December 2017

PART 13

NOTICES TO INVESTORS

The distribution of this Document may be restricted by law in certain jurisdictions and therefore persons into whose possession this Document comes should inform themselves about and observe any restrictions, including those set out below. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction.

General

No action has been or will be taken in any jurisdiction that would permit a public offering of the Shares, or possession or distribution of this Document or any other offering material in any country or jurisdiction where action for that purpose is required. Accordingly, the Shares may not be offered or sold, directly or indirectly, and neither this Document nor any other offering material or advertisement in connection with the Shares may be distributed or published in or from any country or jurisdiction except under circumstances that will result in compliance with any and all applicable rules and regulations of any such country or jurisdiction. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction. This Document does not constitute an offer to subscribe for any of the Shares offered hereby to any person in any jurisdiction to whom it is unlawful to make such offer or solicitation in such jurisdiction.

This Document has been approved by the FCA as a prospectus which may be used to offer securities to the public for the purposes of section 85 of FSMA, and of the Prospectus Directive. No arrangement has however been made with the competent authority in any other EEA State (or any other jurisdiction) for the use of this Document as an approved prospectus in such jurisdiction and accordingly no public offer is to be made in such jurisdiction. Issue or circulation of this Document may be prohibited in countries other than those in relation to which notices are given below.

For the attention of all investors

The Shares are only suitable for acquisition by a person who: (a) has a significantly substantial asset base such that would enable the person to sustain any loss that might be incurred as a result of acquiring the Shares; and (b) is sufficiently financially sophisticated to be reasonably expected to know the risks involved in acquiring the Shares.

For the attention of European Economic Area investors

In relation to each member state of the European Economic Area which has implemented the Prospectus Directive (each, a “**Relevant Member State**”), an offer to the public of the Shares may only be made once the prospectus has been passported in such Relevant Member State in accordance with the Prospectus Directive as implemented by such Relevant Member State. For the other Relevant Member States an offer to the public in that Relevant Member State of any Shares may only be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- (a) to any legal entity which is a qualified investor as defined under the Prospectus Directive;
- (b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provisions of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive) in such Relevant Member State subject to obtaining prior consent of the Company for any such offer; or
- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of Shares shall result in a requirement for the publication by the Company of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer to the public” in relation to any offer of Shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any Shares to be offered so as to enable an investor to decide to purchase or subscribe for the Shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression “Prospectus Directive” means Directive 2003/71/EC (and any amendments, thereto, including the 2010 PD Amending Directive, to the extent implemented in the

Relevant Member State) and includes any relevant implementing measure in each Relevant Member State and the expression “2010 PD Amending Directive” means Directive 2010/73/EU.

During the period up to but excluding the date on which the Prospectus Directive is implemented in member states of the EEA, this Document may not be used for, or in connection with, and does not constitute, any offer of Shares or an invitation to purchase or subscribe for any Shares in any member state of the EEA in which such offer or invitation would be unlawful.

The distribution of this Document in other jurisdictions may be restricted by law and therefore persons into whose possession this Document comes should inform themselves about and observe any such restrictions.

For the attention of U.K. investors

This Document comprises a prospectus relating to the Company prepared in accordance with the Prospectus Rules and approved by the FCA under section 87A of FSMA. This Document has been filed with the FCA and made available to the public in accordance with Rule 3.2 of the Prospectus Rules.

This Document is being distributed only to and is directed at persons who (if they are in the EEA) will fall within one of the categories of persons set out above. In addition, this Document is being distributed only to and is directed at persons in the United Kingdom who are: (i) persons having professional experience in matters relating to investments falling within the definition of “investment professionals” in Article 19(5) of the Financial Promotions Order; or (ii) persons who are high net worth bodies corporate, unincorporated associations and partnerships and the trustees of high value trusts, as described in Article 49(2)(a)-(d) of the Financial Promotions Order; or (iii) persons to whom it may otherwise be lawful to distribute (all such persons together being referred to as “relevant persons”).

PART 14 DEFINITIONS

The following definitions apply throughout this Document, unless the context requires otherwise:

“Admission”	admission of the Enlarged Issued Share Capital to the standard segment of the Official List and to trading on the main market for listed securities of the London Stock Exchange;
“Articles of Association” or “Articles”	the articles of association of the Company adopted conditional on Admission;
“Audit Committee”	the audit committee of the Board, the function and composition of which are set out in Part 4 of this Document;
“certificated” or “in certificated form”	in relation to a share, warrant or other security, a share, warrant or other security, title to which is recorded in the relevant register of the share, warrant or other security concerned as being held in certificated form;
“Chairman”	the Chairman of the Company or the Chairman of the Board from time to time, as the context permits, provided that such person was independent on appointment for the purposes of the UK Corporate Governance Code;
“Change of Control”	the acquisition of control of the Company by any person or party (or by any group of persons or parties who are acting in concert);
“City Code”	the City Code on Takeovers and Mergers;
“Code”	the UK Corporate Governance Code published by the 2016;
“Company”	Shefa Yamim (A.T.M.) Ltd. a company incorporated in Israel with number 512726217;
“Competent Person’s Report” or “CPR”	the technical report entitled, “A Competent Person’s Report on the Shefa Yamim (A.T.M.) Ltd Precious Stones Project, Northern Israel prepared by Creo Design PTY Ltd; a copy of which is contained in Part 15 of this Document
“Control”	(i) the power (whether by way of ownership of shares, proxy, contract, agency or otherwise) to: (a) cast, or control the casting of, more than 50 per cent. of the maximum number of votes that might be cast at a general meeting of the Company; or (b) appoint or remove all, or the majority, of the Directors or other equivalent officers of the Company; or (c) give directions with respect to the operating and financial policies of the Company with which the Directors or other equivalent officers of the Company are obliged to comply; and/or (ii) the holding beneficially of more than 50 per cent. of the issued shares of the Company (excluding any issued shares that carry no right to participate beyond a specified amount in a distribution of either profits or capital);
“Controlling Shareholder”	has the meaning given to it under Israeli Companies Law and as set out on page 16 of the section headed “Risk Factors”;
“Converted Debt”	the Convertible Loans and Related Party Debt to be converted into Shares at a 15% discount to the Subscription Price, as set out on page 54 of Part 7 of this Document
“Convertible Loans”	the approximately £3.6 million raised through convertible loans to be converted to 3,973,461 Shares on Admission, as set out on page 54 of Part 7 of this Document
“Converted Debt Shares”	the 4,294,317 Shares to be issued on Admission in relation to the Converted Debt

“CREST”	the computerised settlement system to facilitate the transfer of title of shares in uncertificated form, operated by Euroclear UK & Ireland Limited;
“CREST Member”	a person who has been admitted to CREST as a system-member (as defined in the CREST Regulations);
“CREST Regulations”	the Uncertificated Securities Order, including any enactment or subordinate legislation which amends or supersedes those regulations and any applicable rules made under those regulations or any such enactment or subordinate legislation for the time being in force;
“Custodian”	a person nominated by the Depositary to hold Shares on their behalf under the terms of the Deed Poll;
“Depositary”	Computershare Investor Services PLC, The Pavilions, Bridgewater Road, Bristol, BS99 6ZZ;
“Depositary Interests” or “DIs”	the depositary interests in uncertificated form representing Shares issued to a holder on the terms of the DI Deed Poll described in Part 10 of this Document;
“DI Deed Poll”	the trust deed poll under which the Depositary issues DIs to holders representing an interest in the Shares and holds the corresponding Shares as bare trustee for the DI holders;
“Directors” or “Board” or “Board of Directors”	the directors of the Company, whose names appear at page 24 of this Document or the board of directors from time to time of the Company, as the context requires, and “Director” is to be construed accordingly;
“Disclosure and Transparency Rules”	the disclosure and transparency rules of the UK Listing Authority made in accordance with section 73A of FSMA as amended from time to time;
“Document”	this document;
“EEA”	the European Economic Area;
“EEA States”	the member states of the European Union and the European Economic Area, each an “EEA State”;
“Enlarged Issued Share Capital”	the ordinary share capital of the Company as enlarged by the issue of Subscription Shares and Converted Debt Shares;
“EU”	the Member States of the European Union;
“Existing Shares”	the issued Shares as at the date of this document
“External Director”	has the meaning given to it under Israeli Companies Law and as set out in Part 5 – ‘Summary of Israeli Law Requirements’
“FCA”	the Financial Conduct Authority of the United Kingdom;
“FSMA”	the Financial Services and Markets Act 2000 of the UK, as amended;
“IFRS”	International Financial Reporting Standards, as adopted by the European Union;
“General Meeting”	the general meeting of the Company
“Independent Non-Executive Director”	the non-executive directors of the Board from time to time considered by the Board to be independent for the purposes of the UK Corporate Governance Code, being Michael Rosenberg, James Campbell, Nathalie Schwarz, David Nachson, Gershon Fraenkel and Hanoeh Ehrlich, as from Admission
“Israel”	The State of Israel;
“Israeli Companies Law”	the Israeli Companies Law, 5759–1999;

“Listing Rules”	the listing rules made by the UKLA under section 73A of FSMA as amended from time to time;
“Lock-In Agreement”	has the meaning given to it in paragraph 16.3 of Part 12 of this Document;
“London Stock Exchange” or “LSE”	London Stock Exchange plc;
“Main Market”	The main market of the LSE
“Mineral Resource”	a concentration or occurrence of material of economic interest in or on the Earth’s crust in such a form, quality, and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a Mineral Resource are known, estimated from specific geological knowledge, or interpreted from a well constrained and portrayed geological model
“Net Proceeds”	the Subscription Proceeds and Convertible Loans proceeds less any expenses paid or payable in connection with Admission and the Subscription;
“New Shares”	the Subscription Shares and Converted Debt Shares issued in the Company
“NIS”	New Israeli Shekel, the lawful currency of Israel;
“Official List”	the official list maintained by the UKLA;
“Parent Company”	Shefa Yamim Ltd, a company incorporated in Israel and whose shares are listed on the Tel Aviv Stock Exchange, and which, on Admission, will own approximately 48.91% of the Enlarged Israel Share Capital;
“Parent Company Debt Liability”	the liability of the Parent Company to the Company for the issuance 7,040,700 shares in the Company to the Parent Company. The outstanding liability amount is linked to the Consumer Price Index and bears interest of 4% per annum. The outstanding debt amount is to be paid exclusively from equity raised by Shefa Yamim Ltd, with the Company entitled to 85% of any such equity raised (net after expenses), until repayment in full of the outstanding debt amount
“Premium Listing”	a premium listing under Chapter 6 of the Listing Rules;
“Prospectus Directive”	Directive 2003/71/EC (and any amendments thereto, including Directive 2010/73/EU, to the extent implemented in the relevant member state), and includes any relevant implementing measures in each EEA State that has implemented Directive 2003/71/EC;
“Prospectus Rules”	the prospectus rules of the UK Listing Authority made in accordance with section 73A of FSMA, as amended from time to time;
“Registrar”	Computershare Investor Services (Jersey) Limited or any other registrar appointed by the Company from time to time;
“Related Party Debt”	A debt of approximately £0.3 million to be converted to 320,856 Shares on Admission as set out on page 54 of Part 7 of this Document
“Relationship Agreement”	the agreement dated 12 December 2017 entered into between the Company, VSA and the Parent Company which will regulate the on-going relationship between them from Admission;

“Remuneration Committee”	the remuneration committee of the Board, the function and composition of which are set out in Part 4 of this Document;
“Resolution of Members”	has the meaning specified in the Articles;
“SEC”	the U.S. Securities and Exchange Commission;
“Securities Act”	the U.S. Securities Act of 1933, as amended;
“Shareholders”	the holders of Shares;
“Shares”	the ordinary shares of NIS 1.00 each in the capital of the Company;
“Special Resolution”	has the meaning specified in the Articles;
“Standard Listing”	a standard listing under Chapter 14 of the Listing Rules;
“Subscriber”	a person subscribing for Subscription Shares under the Subscription;
“Subscription”	the proposed subscription of the Subscription Shares;
“Subscription Price”	110 pence per New Share;
“Subscription Proceeds”	£0.25 million, being the gross funds received on closing of the Subscription;
“Subscription Shares”	the 223,139 Shares to be issued pursuant to the Subscription;
“UK Corporate Governance Code”	the UK Corporate Governance Code issued by the Financial Reporting Council in the U.K. from time to time;
“UK Listing Authority”	the FCA in its capacity as the competent authority for listing in the U.K. pursuant to Part VI of FSMA;
“uncertificated” or “in uncertificated form”	in relation to a share or other security, a share or other security, title to which is recorded in the relevant register of the share or other security concerned as being held in uncertificated form;
“United Kingdom” or “U.K.”	the United Kingdom of Great Britain and Northern Ireland;
“United States” or “U.S.”	the United States of America;
“VAT”	(i) within the EU, any tax imposed by any Member State in conformity with the Directive of the Council of the European Union on the common system of value added tax (2006/112/EC), and (ii) outside the EU, any tax corresponding to, or substantially similar to, the common system of value added tax referred to in paragraph (i) of this definition; and

“VSA”

VSA Capital Limited, Financial Advisers and Brokers to the Company.

References to a “company” in this Document shall be construed so as to include any company, corporation or other body corporate, wherever and however incorporated or established.

PART 15
COMPETENT PERSON'S REPORT



SHEFA YAMIM (A.T.M.) LTD

A COMPETENT PERSONS REPORT ON THE SHEFA YAMIM (A.T.M.) LTD PRECIOUS STONES PROJECT, NORTHERN ISRAEL

Prepared by:

J Hattingh & L Erasmus

October 2017

**A COMPETENT PERSON'S REPORT ON THE
SHEFA YAMIM (A.T.M.) LTD PRECIOUS STONES PROJECT,
NORTHERN ISRAEL**

October, 2017

Prepared by:

J. Hattingh and L. J. Erasmus

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Date: October 2017

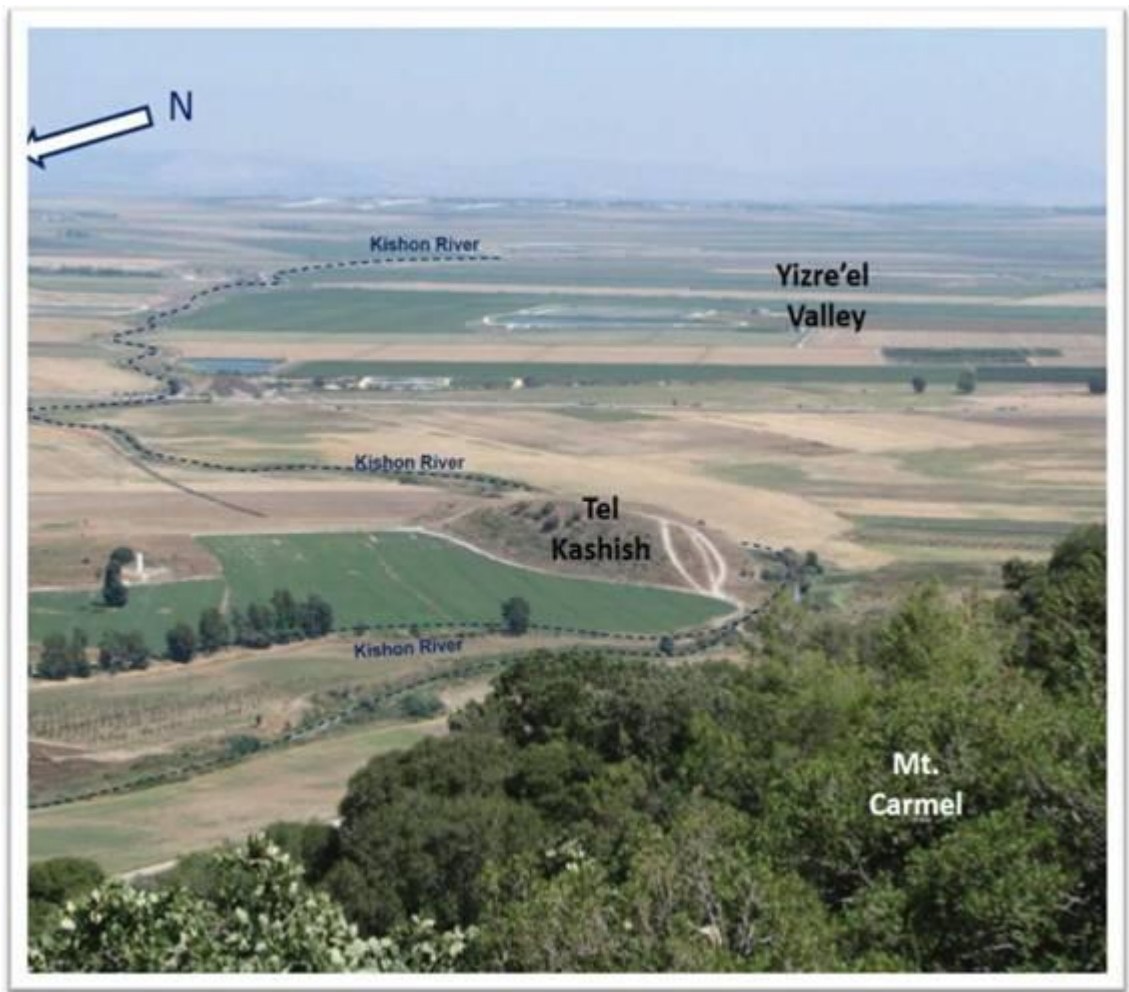
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South-eastward view from Mt. Carmel onto the Kishon River floodplain.

Cover photo acknowledgement:

Zilberman, E. and Sandler, A., 2013. Coastlines and morphological surfaces in the western Lower Galilee- a key to restoring relief evolution as a response to uplift and stable periods processes. Trip No. 4, Israel Geological Society Annual Meeting, Akko.

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Table 4. Bulk sampling in the Mid Reach as at October 2017

Table 5. List of Pit and Bulk Samples taken in the Shefa Yamim permit areas

Table 6. Size Range Distribution of the TMA recovered from BS-1214.

Table 7: Size Range Distribution of the TMA recovered from BS-1211.

Table 8. Bulk sample SY-1124 results

Table 9. Total weight of minerals in carats

Table 10. Bulk sampling Kishon Mid Reach Zone 1 & 2 – Carat calculator

1. EXECUTIVE SUMMARY

The Shefa Yamim Precious Stones Project is held by Shefa Yamim (A.T.M.) Ltd., a company established in Israel for prospecting and mining precious stones. The focus in particular is on natural moissanite, sapphire, ruby and diamonds in the Kishon River catchment area at Haifa, Israel, some 85km north of Tel Aviv. Over the past few years, and as a direct result of Shefa Yamim's extensive exploration, northern Israel has become known for its high-quality rubies and sapphires, large natural moissanite crystals as well as diamonds. The precious stones occur in primary deposits within the Cretaceous volcanic host rocks on Mount Carmel in volcanic host rocks bordering the Yizre'el Valley and as secondary deposits in valley-fill sediments in the Kishon River valley flanking Mt. Carmel along its north-eastern side.

Therefore, the principal exploration targets of Shefa Yamim are primary sources on Mt. Carmel (Mesozoic mafic and ultra-mafic volcanic rocks) and secondary sources of valley-fill sediment deposits throughout the Kishon River catchment (sourced in Cenozoic mafic volcanic rocks). Following 18 years of exploration Shefa Yamim has reached a stage whereby it delineated a 4.5km long exploration target of some 1Mt of gem stone bearing gravel.

Shefa Yamim has established its Target Mineral Assemblage (TMA), which constitutes two significant mineral suites:

- ❖ The DMCH suite: Diamond (D), natural moissanite (M) and the corundum gem varieties (C) of sapphire, "Carmel Sapphire", ruby and Hibernite (H).
- ❖ The HIM suite: Heavy (H) industrial (I) minerals (M) of zircon, corundum, rutile, ilmenite and garnet.

The rare presence of diamonds, along with an abundance of the two other highpressure minerals, natural moissanite and corundum (including sapphire, Carmel Sapphire, ruby and hibernite), in several primary Mesozoic sources on Mt. Carmel and in the Cenozoic Kishon Valley secondary deposits, points to an unusual, off-craton geological history that warrants special attention. Likewise, the presence of corundum in both Mesozoic mafic and ultra-mafic volcanics and younger Cenozoic mafic volcanics supports the potential for sapphire-dominant (and to a lesser extent, ruby) placers to have been developed along the Kishon Valley, especially in the Mid Reach zone between the Yizre'el and Zevulun Valleys.

Incorporating the available geological mapping, a robust, and dynamic geological model has been developed to guide placer exploration in the Kishon catchment. This model is consistently updated "on the move" with work progress. It also serves to highlight opportunities for further investigation into the primary sources within this catchment and in the adjacent areas of Mt. Carmel, Ramot Menashe and Migdal Ha-Emeq.

The Shefa Yamim precious stone deposits at Mt. Carmel and immediate vicinity are located on the Arabian Plate on the flank of a recently active rift-zone. Mt. Carmel is noted for its complex stratigraphy

and structure. Rocks building Mt. Carmel are predominantly of Cretaceous age and consist of various calcareous rocks including dolomite, limestone, chalk and marl, with volcanic intercalations. These stratigraphic units show marked facies changes, attributed to the fact that during the Cretaceous the area was situated close to the edge of a large carbonate platform. Equilibrium tectonic and depositional conditions prevailed across large stretches of the platform and can be seen in the blanket of calcareous deposits, which characterises the central and northern parts of Israel. Due to the structurally-induced elevation of Mt. Carmel, the Senonian calcareous rocks are well exposed along its south-eastern boundaries and in the adjacent syncline (Menashe syncline). Volcanic bodies occur at various levels and localities within the Cenomanian to Senonian calcareous sequences. These volcanic bodies are lenticular, and their distal and thin continuations overlap in some cases.

Most of the Phanerozoic volcanic activity in Israel and the Middle East was restricted to a few, well-defined phases during the Jurassic, Early Cretaceous and Neogene to Recent ages. The Late Cretaceous is generally known for its volcanic quiescence. The only exception to this is the occurrence of Upper Cretaceous volcanic rocks in the Mt. Carmel vicinity. A well-preserved record of these volcanic eruptions is found in the greater Mt. Carmel area where thirteen volcanic bodies occur within Shefa Yamim's permit areas. The most exciting discovery to date is the mineral assemblages of the volcanic rocks. Shefa Yamim has demonstrated that some of these volcanic bodies have mineral assemblages that are compatible with kimberlitic sources. In addition, gem stone variety corundum such as sapphires and rubies, as well as natural moissanite, have been recovered from these volcanic bodies. A recently discovered titanium-rich corundum gem variety called Carmel Sapphire appears to be unique to the Mt. Carmel and immediate alluvial surroundings.

Petrographic studies on the Mt. Carmel volcanic rocks showed it to be more akin to being kimberlitic in nature than the alkali-basalt or basanite as it was described before. Petrographically, the samples were classified as re-sedimented and primary, pyroclastic, crater-facies kimberlitic rocks. Some samples exhibit an oxidized, granular, matrix-supported, poorly to moderately sorted, finely-bedded, carbonate-rich re-sedimented volcanoclastic kimberlite. Altered, massive, matrix-supported, moderately sorted, volcanoclastic kimberlite and clast-supported, poorly-sorted welded, and lapilli tuff kimberlite were also described.

Shefa Yamim launched a comprehensive mapping campaign of the magmatic bodies on Mt. Carmel supported by high resolution geophysical and geochemical surveys. Petrographic studies on the magmatic rocks of Mt. Carmel showed that these rocks not only are diamond-bearing, but also host sapphire, Carmel Sapphire, hibonite and ruby, the gem varieties of corundum, as well as natural moissanite. At this stage, the Mesozoic Rakefet Magmatic (volcanic) Complex (RMC) is the only primary source in the Kishon catchment to have yielded the full mineral assemblage comprising the Diamond-Moissanite-Corundum suite, as well as the complete range of Kimberlitic Indicator Minerals (KIMs) and the HIM mineral suite. However, Shefa Yamim continues to prospect 6 more volcanic bodies on the central and western areas of Mt. Carmel and explores another 3 bodies (i.e. Muhraha, Har Alon and Beit

Oren) that are also within the Kishon River drainage basin and a potential provenance of precious stones found in the Mid- and Distal Reaches of the Kishon River.

Shefa Yamim collaborates with international academic institutions to gain a better insight into the volcanic history of the Mt. Carmel area, which will assist in target prioritization. Of these, the Macquarie University in Australia research team is engaged in the study of mineral assemblages found within Shefa Yamim's exploration permit areas. The research team led by Professor Bill Griffin, an expert in Earth's mantle geology, is currently examining moissanite, sapphires and rubies sampled from the Mt. Carmel volcanic bodies and the alluvial sediments within the Kishon valley. The aim of the research is to investigate the link between mantle conditions and the crystallization of corundum and moissanite at such depths. These minerals hold the key to understanding their formation in a geological setting that is unconventional for northern Israel.

A considerable part of the Kishon River catchment area drains Mt. Carmel. Here, well-developed alluvial fans along the northern slopes of Mt. Carmel feed large quantities of sediment into the present-day Kishon River valley. This supply of sediment was probably more substantial during the humid Late Cenozoic period when much higher discharge was channelled via the Kishon Drainage System. A large heavy mineral population including the gem stones arrive with the sediment eroded from Mt. Carmel into the Kishon River valley where it gets concentrated in favourable locations in placer deposits. Neogene volcanism occurring at the margins of the proximal reach of the Kishon River (upstream, from the Yizreel Valley drainage) has also contributed to the sediment supply. The Kishon graben, located along the Distal Reach of the Kishon River, immediately north of Mt. Carmel, represents an asymmetric graben with a steep south-western boundary and a gentle slope to the northeast. It is bordered by the uplifted area of the Shefar'am Tiv'on syncline in the southeast. The basin is bordered by the Carmel Fault in the southwest and the Ramat Yohanan Fault in the northeast. The Late Cenozoic valley-fill sediments provide an uninterrupted depositional record of the area and in particular the development of the Kishon River. In the Kishon graben, Cenozoic Kishon fluvial sediments are interbedded with fossiliferous marine sediments in a palaeo-marine embayment. The Kishon drainage has been subdivided into three geomorphic reaches along its length that cover the Exploration Permit and Prospecting Permits held by Shefa Yamim, namely: The Proximal Reach, Mid Reach and Distal Reach. Each reach has varying degrees of placer potential. The placer assemblage includes diamond, moissanite and corundum (represented by sapphire, Carmel Sapphire and ruby) of the DMCH suite. Some 76 small diamonds (largest 0.88 carats) were recovered from the Kishon Valley sediments, which gave rise to collaboration with De Beers Africa Exploration division since 2003. Apart from one near surface diamond recovery from Cenozoic fluvial sediments in the Mid Reach of the Kishon River (4.5 meter below surface, borehole SY-18), the bulk of the alluvial diamonds were recovered at depths between 20–300m in the Kishon graben.

The sediment record in the valley shows convincing evidence of high-energy torrential flows during the Late Miocene and Pliocene, making way for progressively dryer conditions during the Pleistocene till the present-day semi-arid conditions experienced since the Holocene. Today the Kishon River is the principal

drainage of the Galilean valleys and hills and of Mt. Carmel before it enters the Mediterranean Sea just north of Haifa.

Shefa Yamim's exploration programme in both the Exploration and Prospecting Permits focuses predominantly on the Kishon River catchment area. The primary target is a multi-commodity TMA alluvial placer deposit in the 4.5km long Kishon Mid Reach placer between Tel Kashish and Jalame Junction. This virgin area has been mapped in the past 18 years, partly drilled and partly bulk sampled. Ongoing activities provide the basis for a better geological understanding of the Mid Reach of the Kishon River with the aim of defining a mineral resource in this placer deposit. To date, the company has delineated three main areas within the Mid Reach: Zones 1, Zone 2 and 3. The sedimentary succession has been studied by means of a comprehensive drilling campaign and a recently-launched bulk sampling programme aimed specifically at Zones 1 and 2. Some 186 boreholes have been drilled by Shefa Yamim in the Kishon catchment of which a total of 146 boreholes were drilled specifically in the Mid Reach to study the sediments and in particular the gem stone bearing gravels in the valley. These drilling results that form part of an on-going drilling programme have been geologically modelled in 3D. This modelling delineated 1.1Mt of precious stone bearing gravels with a stripping ratio of 1:1.3 overburden to gravel over an area of some 505,000m².

At present, Shefa Yamim has excavated a total of 46 mini-bulk and bulk samples (pits and trenches) ranging from 10t to 600t, each within the Kishon River floodplain and in particular in the Mid Reach. Some 20 trenches were excavated during 2011-2012 to sample the gravels. The smaller pit samples exhibited considerable variation in precious stone yield that can be attributed to relative small sample sizes with a consequently large variation in grade figures. Based on the results of the pit samples and the drilling information, a bulk sampling programme was initiated in areas where prospective gravel deposits were encountered. Bulk sampling with gravel volumes up to 600t per sample are being extracted since July 2015 according to this new plan. A total of 4,127.7t of heavy mineral and gemstone bearing samples have been analysed by the Shefa Yamim in-house processing facility and laboratories for total heavy mineral and gem mineral content (bottom cut-off size is 1mm). All the samples treated yielded Kimberlite Indicator Minerals (KIM) and a considerable proportion of the Shefa Yamim's TMA, in particular moissanite and gem varieties of corundum.

Three of the larger bulk samples extracted and processed (SY-1124, SY-982 of 400t each and SY-1174 of 500t) are still probably too small to be considered statistically meaningful, but some useful results were recorded. The first two samples yielded world record moissanite crystals of 4.1mm and 4.14mm in length respectively. Sample 1124, yielded 1431.59 carats of TMA minerals (excluding diamonds) from 400 ton of basal gravels to give an overall grade of 358 carats per hundred tonnes (cpht). Here the Diamond-Moissanite-Corundum suite was dominated by Carmel Sapphire (248cpht; maximum size = 33.3 carats); sapphire (6cpht; maximum stone size = 3.33 carats), followed by moissanite (0.9cpht; maximum length = 4.14mm) and ruby (0.2cpht). In Sample SY-1124, most the heavy minerals recovered (85%) fell within the 0.01 to 1.19 carat range, with 9% in the 1.20 to 2.49 carat range and 6% larger than 2.5 carat stones.

The outstanding features of the gemstone assemblage in the target area are the unusual large variety of precious stones present, the high quality of the stones, exceptionally large rare natural moissanite crystals and unique Carmel sapphire. The recently discovered very rare hibonite gemstones are present in both the primary source rocks of Mt. Carmel and in the secondary alluvial deposits in the Kishon River Valley. This discovery adds notably in rendering this deposit a true multi-gemstone deposit. Significantly, the high Carmel Sapphire grades, supported by good grades of the other gemstones, in the Kishon Mid Reach alluvial deposits designate them as attractive from a gemstone yield perspective. This, together with the favourable stripping ratio, renders the Kishon Mid Reach alluvial deposit very prospective as a potential gemstone resource with reasonable prospects of eventual economic extraction.

Creo believes that the drilling, pitting and bulk sampling done in the Mid Reach of the Kishon valley is currently sufficient for delineating good placer deposits in this area. Exploration to date has revealed the presence of just more than 1Mt of TMA-bearing gravels covered by a relatively thin overburden cover. Drilling data and 3D-modelling undertaken indicate that mineralisation may extend in an up-valley and down-valley direction and substantial scope exists to extend the resource further along the valley. Infill and extensional drilling will improve the geological, as well as the resource, confidence in the areas currently identified in two promising target zones, namely: Zones 1 and 2. More and larger bulk samples are needed to define a Mineral Resource in the Kishon River Mid Reach Multi-Commodity Placer. Here the focus should be on work that will demonstrate geological and grade continuity.

2. INTRODUCTION AND TERMS OF REFERENCE

Shefa Yamim (A.T.M.) Ltd (Shefa Yamim) is engaged in the exploration for precious stones deposits and in particular diamonds, moissanite, sapphire, and ruby in the Kishon River catchment area, Haifa, Israel, some 85km north of Tel Aviv. The company maintains offices and staff in Netanya (Head office) and Akko (operational Centre and Laboratories), Northern Israel. The directors of Shefa Yamim engaged Creo Design (Pty) Ltd (Creo) in October 2015 to prepare an Independent Technical Report in conformity with standards and in compliance with the SAMREC Code issued under the auspices of the South African Institute of Mining and Metallurgy ("SAIMM"). Since Creo's first engagement as CP the report has been updated in a number of versions. The most recent CPR being dated 5 October 2017. The guidelines as set out in the SAMREC Code are considered by Shefa Yamim to be a concise recognition of the best practice reporting methods for this type of mineral development, and accord with the principles of open and transparent disclosure that are embodied in internationally accepted Codes for Corporate Governance.

This report describes the exploration developments and results of a first phase mineral resource estimation based on drilling and bulk sampling as part of an extensive exploration campaign.

The currency used in this report is expressed in US dollars and, unless specified, all measurements in this report use the metric system except where specified otherwise. Coordinates used within this report are Israeli Transverse Mercator (ITM), and are reported in the ITM zone, GRS 80 datum.

The sections on Mining Operations, Process Mineral Recoveries, Markets, Contracts, Environmental Considerations, Other Relevant Data and Information, Taxes, Capital and Operating Cost Estimates, Economic Analysis, Payback, and Mine Life, are not applicable to this report. All Illustrations are embedded within the body of the report.

3. COMPLIANCE

This report has been prepared in accordance with the 2016 South African Code for Reporting of Exploration Results, Mineral Resources and Ore known as the SAMREC Code (“SAMREC”) produced and published by the SAMCODES Standards Committee (SSC) under the auspices of the South African Institute of Mining and Metallurgy (“SAIMM”).

In accordance with the Listings Requirements and the contents of the SAMREC Code, this CPR has been prepared under the direction of the Competent Person (CP) who assumes overall professional responsibility for the document. The CPR however is issued by Creo, the commissioned entity, and accordingly Creo assumes responsibility for the views expressed herein.

3.1 Competent Person

Johan Hattingh, employed by Creo as a geologist with more than 28 years of experience, is the principle author responsible for the preparation of this report. Lourens Erasmus is the co-author and also a geologist with more than 29 years of experience. Johan Hattingh is Competent Persons (CP’s), as defined by the SAMREC Code. The Competent Person considers the SAMREC Code to be the most appropriate standard for the Public Reporting of Exploration Results, Mineral Resources and Ore Reserves. The SAMREC Code sets out minimum standards, recommendations, and guidelines for Public Reporting.

3.2 Site Visit and Data Validation

Johan Hattingh, in his capacity as CP, conducted an inspection visit during early November 2015 when the exploration sites, processing facilities and laboratory were visited. During this visit, discussions were held with key on-site and head office personnel. The technical information used in this CPR was provided by Shefa Yamim and used in good faith by Creo. Where possible, Creo have satisfied itself that such information is both appropriate and valid to ensure SAMREC compliance in terms of the level of disclosure.

3.3 Reliance on other Experts

The CP’s of this Technical Report states that Dr. J. Hattingh is a competent person for the areas as identified in the appropriate “Certificate of Competent Person” attached to this report.

Johan Hattingh and Lourens Erasmus have followed standard professional procedures in preparing the content of this report. Data used in this report has been verified where possible, and this report is based on information believed to be accurate at the time of its completion. The authors have relied to

a large extent on reports provided by Shefa Yamim and the work done by external experts appointed by Shefa Yamim. The technical information from the external experts and supplied to Creo are considered both valid and accurate for compiling this CPR. In terms of all legal aspects relating to the Shefa Yamim properties, Creo has placed reliance on the management of Shefa Yamim that the permit validity, status of permit registration, fees payable, and agreements with landowners are correct. There is no legal uncertainty on the ownership of the Shefa Yamim Project and the legal ownership and all mineral and surface rights have been verified. The legal statements referred to the above are based on information provided by the management of Shefa Yamim and are true and correct to the best knowledge of Creo.

3.4 Declarations

Creo is independent of the company, its directors, senior management and its other advisers; has no economic or beneficial interest (present or contingent) in the company or in any of the mineral assets being evaluated and is not remunerated by way of a fee that is linked to the admission or value of the issuer.

4. VERIFICATION

4.1 Mineral Tenure

Creo's authors have reviewed the mineral tenure related to the Shefa Yamim Permits and has independently verified the legal status and ownership of the Shefa Yamim Permits including underlying property agreements.

4.2 Permitting

Regarding the status of the current permits, Creo's CP's has independently verified the information, opinions and data supplied by Shefa Yamim representatives and by independent experts retained by Shefa Yamim as far as possible.

4.3 General

The information mentioned in the above sections was sourced from scans and photocopies of official documents, which has been supplied by Shefa Yamim. The author is not responsible for the accuracy of any mineral tenure or related data, and do not make any claim or state any opinion as to the validity of the property disposition described herein.

For the preparation of this report, the author has relied on maps, documents, and electronic files generated by the Shefa Yamim management and in-house geologists and exploration teams, contributing consultants, and service providers working under their supervision. To the extent possible under the mandate of a SAMREC review, the data has been verified regarding the material facts relating to the prospectiveness of the property reviewed in this report.

5. PROPERTY DESCRIPTION AND LOCATION

The Shefa Yamim property is located across the Kishon catchment in northern Israel. It includes the Zevulun and Yizre'el Valleys, as well as the adjacent elevated terrains of Mt. Carmel (including ten volcanic complexes), Nazareth range, Ramot Menashe and Tiv'on hills (Figure 1). Ownership of surface rights for land covered by Shefa Yamim's Exploration and Prospecting Permits is predominantly held by the state of Israel. Small pockets of land in the north-eastern extreme of the prospecting permit are held by private landowners. Mineral rights belong to the State of Israel and since February 1999, Shefa Yamim has been granted authorities. The Inspector of Mines at the Ministry of National Infrastructure, Energy and Water Resources issues these permits for a maximum period of 24 months. Tables 1 and 2 list the permits issued to date (Figure 2).

Table 1: List of Exploration permits

Permit #	Exploration permit No.	Issue date	Expiry date	Surface area (Dunam)*
1	Exploration permit No. 24	15/04/1999	14/04/2000	10,740
2	Exploration permit No. 39	01/08/1999	04/04/2000	69,000
3	Exploration permit No. 35	15/04/2000	14/04/2001	69,000
4	Exploration permit No. 40	15/04/2001	14/07/2002	112,000
5	Exploration permit No. 47	16/07/2002	31/12/2003	112,000
6	Exploration permit No. 74	01/01/2004	31/08/2005	112,000
7	Exploration permit No. 98	01/01/2006	31/05/2007	145,740
8	Exploration permit No. 134	01/08/2007	31/03/2009	173,887.5
9	Exploration permit No. 169	01/04/2009	31/03/2011	173,887.5
10	Exploration permit No. 206	15/05/2011	14/05/2013	173,887.5
11	Exploration permit No. 869B4	20/10/2013	19/10/2014	173,887.5
12	Exploration permit No. 869B5	30/12/2014	29/12/2015	173,888
13	Exploration permit No. 869B6	06/04/2016	05/04/2017	173,888
14	Exploration permit No. 869B7	06/04/2017	05/06/2018	173,888

*1 dunam = 0.1ha = 0.001km²

Table 2: List of Prospecting Permits

	Prospecting permit No	Issue date	Expiry date	Surface Area (Dunam)
1	Prospecting Permit No. 23	15/02/1999	17/04/1999	10,740
2	Prospecting permit No. 48	1/08/2002	31/12/2002	1,046,552
3	Prospecting permit No. 54	01/01/2003	20/07/2003	1,046,552
4	Prospecting permit No. 57	01/06/2006	31/12/2003	822,280
5	Prospecting permit No. 58	01/01/2004	31/08/2004	844,575
6	Prospecting permit No. 81	01/01/2005	31/08/2005	1,085,000
7	Prospecting permit No. 111	01/12/2006	30/11/2007	455,000
8	Prospecting permit No. 139	01/01/2008	31/12/2008	598,962
9	Prospecting permit No. 140	01/01/2009	31/12/2009	598,962.5
10	Prospecting permit No. 182	01/01/2010	31/12/2011	327,551.1
11	Prospecting permit No. 183	01/01/2010	31/12/2011	158,012
12	Prospecting permit No. 221	01/04/2012	31/03/2014	327,551.1
13	Prospecting permit No. 222	01/04/2012	31/03/2014	158,012
14	Prospecting permit No. 837A8	15/07/2014	14/07/2015	327,551
15	Prospecting permit No. 899A3	15/07/2014	14/07/2015	112,904
16	Prospecting permit No. 837A9	21/12/2015	20/12/2016	327,551
17	Prospecting permit No. 899A4	21/12/2015	20/12/2016	112,904
18	Prospecting permit No. 837A10	21/12/2016	20/12/2017	327,551
19	Prospecting permit No. 899A5	21/12/2016	20/12/2017	112,904

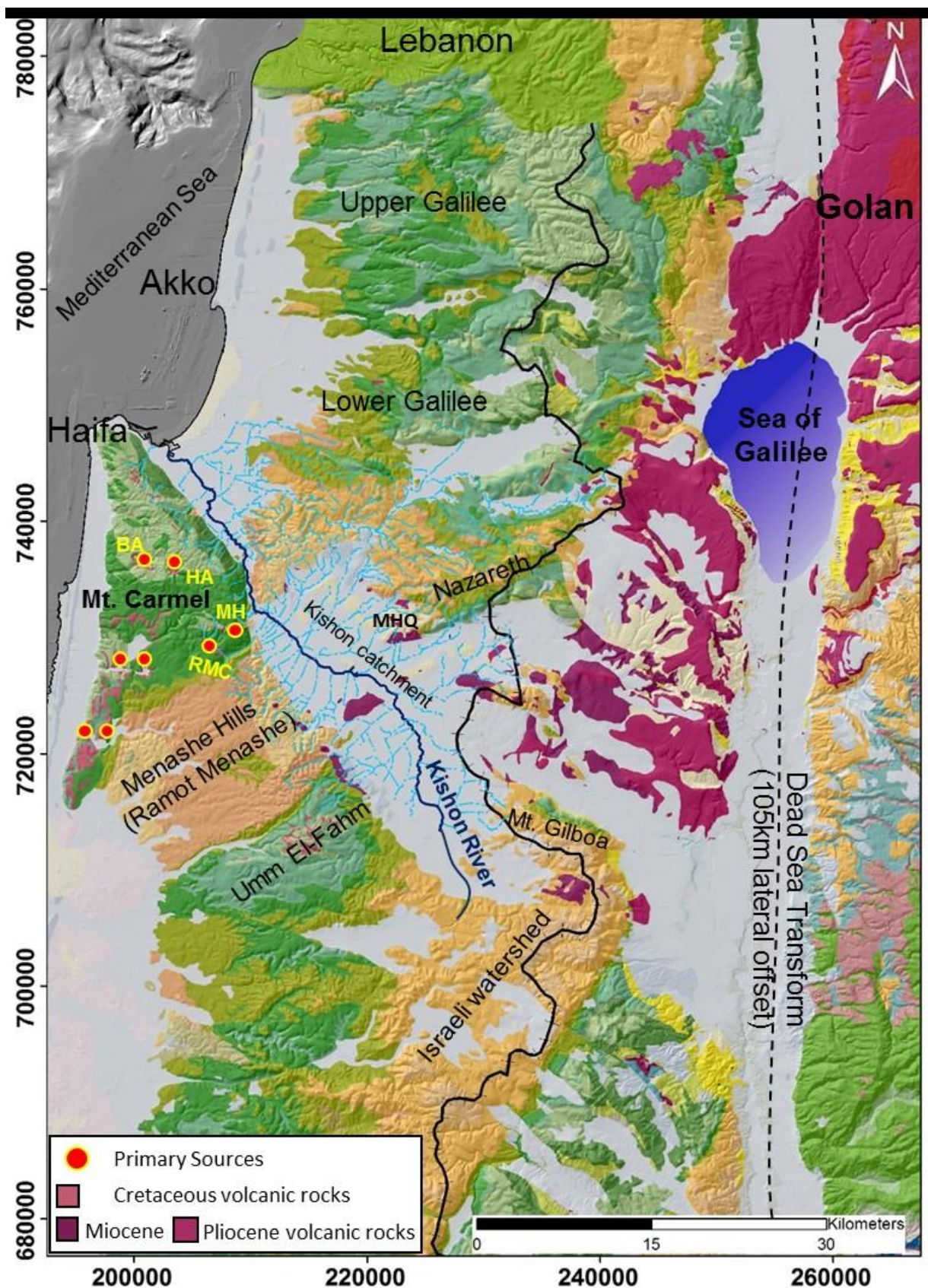


Figure 1:

Locality map. RMC-Rakefet Magmatic (volcanic) Complex; MH-Muhraka; BO-Beit Oren; HA-Har Alon.

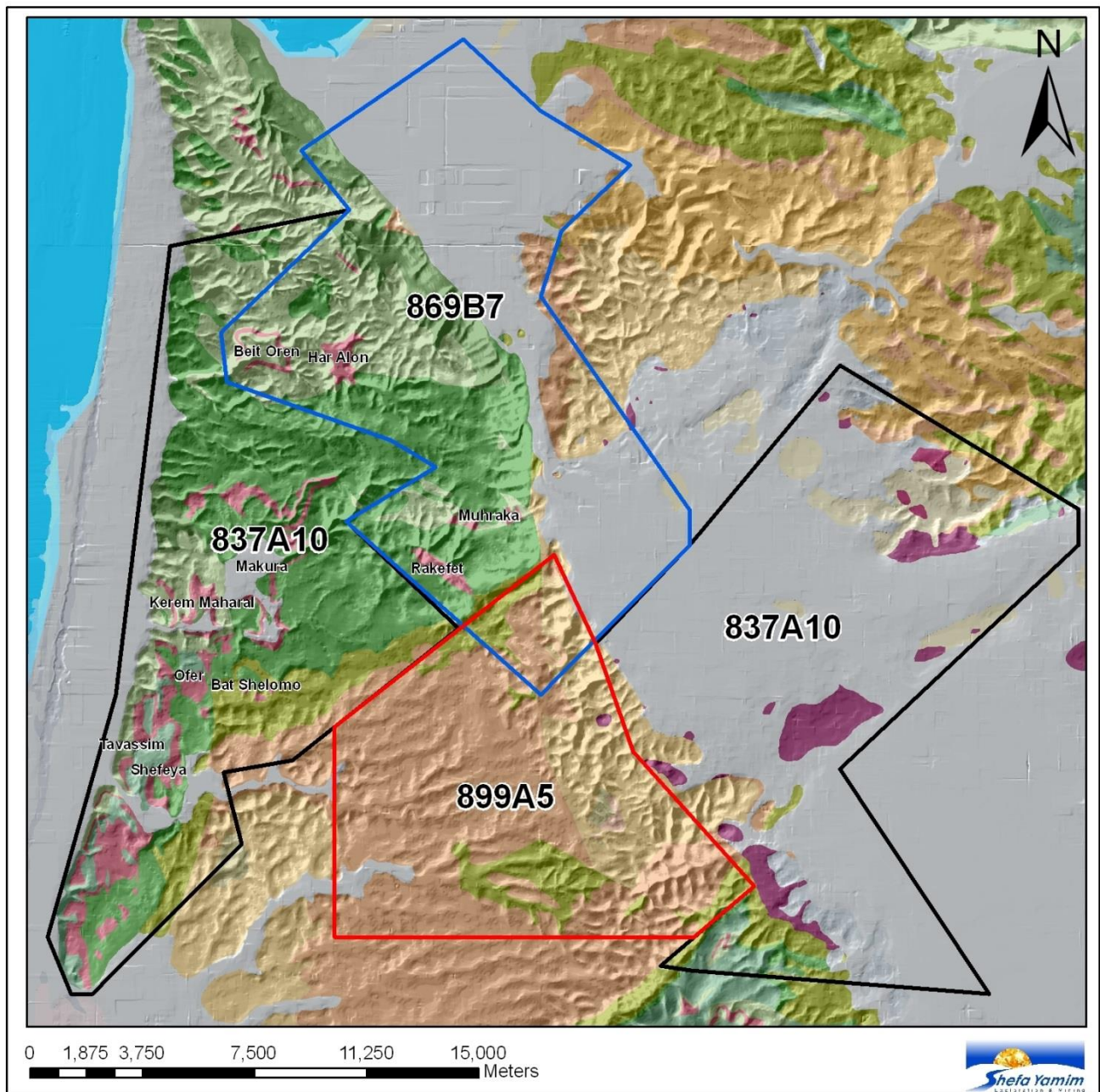


Figure 2: Location map showing the current permits of Shefa Yamim, covering an area of 614km². Shefa Yamim currently holds the rights for exclusive exploration and prospecting permits covering a total area of some 614,000 dunam (614km²).

This area is divided into three permits (Figure 2) namely:

❖ Exploration permit 869B7

Placer targets: Kishon River & Zevulun and Yizreel valleys.

Volcanic targets: Rakefet, Muhraha, Har Alan and Breit Oren on Mt. Carmel.

Permit area: 137,888 dunam (137.888km²)

❖ Prospecting permit 837A10

Volcanic targets: Makura, Tavassim, Ofer, Shefeya, Bat Shelomo, Kerem Maharal, Migdal Ha-Emeq (valleys margins)

Permit area: 327,551 dunams (327.551km²)

❖ Prospecting permit 899A5

Volcanic targets: Ramot Menashe area
Permit area: 112,904 dunams (112.904km²)

6. GENERAL INFORMATION AND LOGISTICS

The Shefa Yamim properties cover a large part of the Kishon River catchment area in northern Israel where it includes the Zevulun and Yizre'el Valleys, as well as the adjacent elevated terrains of Mt. Carmel (including ten volcanic complexes), Nazareth range, Ramot Menashe and Tiv'on hills (Fig. 1).

6.1 Accessibility

The prospecting area has a well-developed transportation network, which includes ports, highways, good roads, and a modern railway system. Haifa Port and a fishing port are located about 10km to the northwest of the permit area. The ports are connected with the central and northern parts of Israel through the Haifa – Tel Aviv and Haifa-Yoqne'am highways. District roads connect numerous small settlements and most of them are paved.

Construction on the Valley-Railway (Rakevet Ha-Emeq) is well underway to link Tiberias-Beit Shean in the Jordan Valley and the Haifa Port by 2017. Shefa Yamim's operational facility is located approximately 15km north of the Haifa port.

6.2 Topography

The permit areas include a variation of landscape types, which are briefly described below. Mt. Carmel occurs in the southern part of the permit area with a general northwest-southeast trend between Nahal Yoqne'am (Nahal is a stream or ephemeral stream valley) and the Mediterranean Sea. The highest points along Mt. Carmel are some 500m above mean sea level (amsl), with a maximum of 546m at Rom Ha-Carmel. The Mt. Carmel ridge is asymmetric with slopes descending steeply to the northwest and northeast and gently toward the southwest and southeast (Figs. 1 and 3).

Southeast of Mt. Carmel is Ramat Menashe (Menashe Hills), which covers the area between Nahal Yiron to the southeast and Nahal Yoqne'am to the northwest. The average elevation of Ramat Menashe is 250m amsl, with two peaks reaching some 400m. Here the landscape is characterised by gentle, rounded hills. To the northeast, Ramat Menashe rises steeply above the Yizre'el Valley as a result of a recently active geological fault, whereas to the southwest, the slopes are gentle.

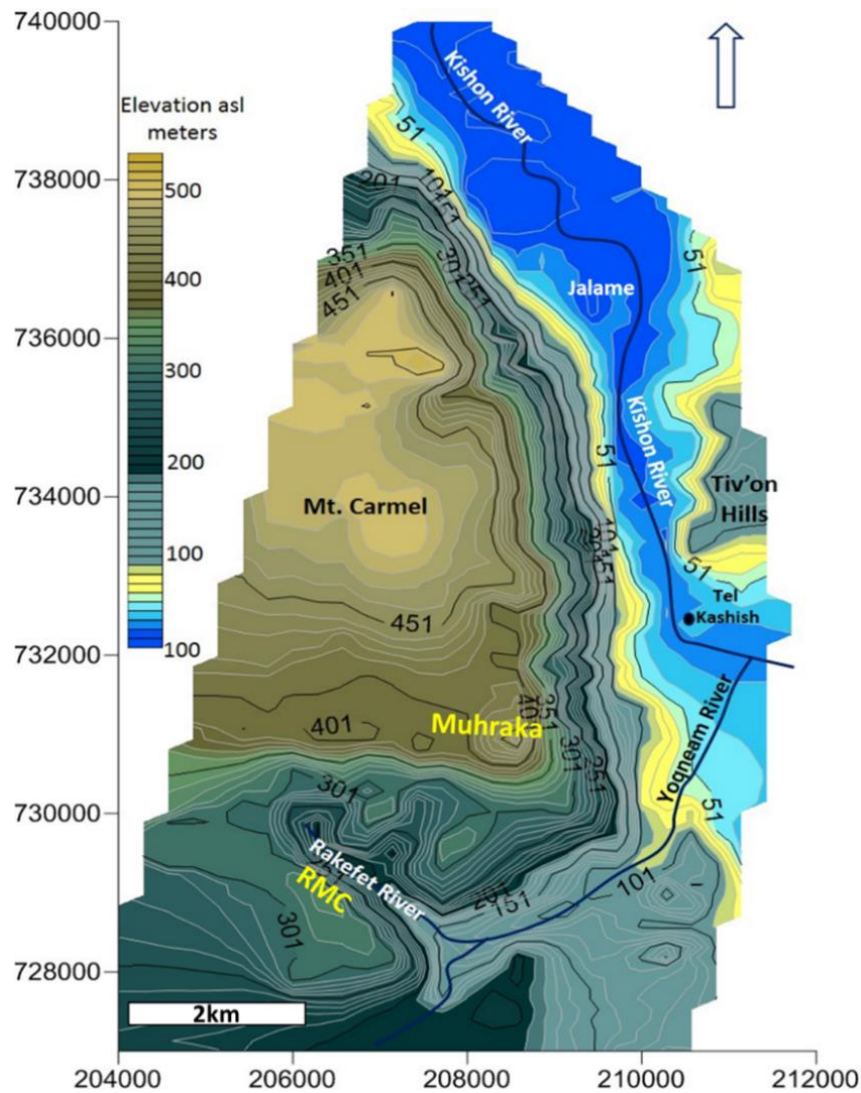


Figure 3: Topographic model of Mt. Carmel summit and north-eastern slopes as well as Tel Kashish and the Kishon River Mid and Distal Reach.

Southeast of Ramat Menashe, in the southwest part of the license area, is the Um-el-Fahem range which lies between the Dotan Valley to the southeast, and the Yiron Valley to the northwest. These mountains reach a topographic high of 527m at Mt. Alexander above the village of Um-el-Fahem.

Northeast of Mt. Carmel is a flat area called Emeq Zevulun, which is adjacent to the Lower Galilee Mountains to the east and the Mediterranean Sea to the west. The Zippori River drains the Nazareth range into the distal reach of the Kishon River.

6.3 Drainage

The permit area is drained by the Kishon River, and its floodplain represents an important part of the exploration area. The Kishon River, 77km long, flows through the Yizre'el Valley into the Zevulun Valley where it enters the Mediterranean Sea in the Bay of Haifa. Some 40km lies within the permit area. The river drains an area of some 1,122km² in total. Its headwater reach is in the north-western part of Mt. Gilboa east of the permit area, and it flows in a west-north-westerly direction through the Yizre'el Valley, emptying into the Haifa Bay in the Mediterranean Sea.

6.4 Climate and Vegetation

The climate of the area is generally of the Mediterranean subtropical type, with rainfall restricted mainly to the winter months. In January temperatures average 14°C. In July the average temperature is 27°C. Rainfall is about 1,015mm annually (Galilee). Very well-developed vegetation in the area is represented by bush and small trees.

6.5 General Infrastructure

The Shefa Yamim permit area is near the Haifa industrial area where a full-service community exists that can easily provide essential services 12 months a year. Haifa has a qualified work force and equipment can be readily provided. Among many of the businesses and support services, Haifa also has excellent medical care facilities, road networks, electricity supply, seaports and an airport.

7. HISTORICAL BACKGROUND

Apart from some oil, industrial mineral and base metal exploration in Israel, the country has not been receiving much attention as an exploration and mining target for mineral commodities, let alone precious stones. However, this was to change with the first diamond discovery in the region in northern Israel in 1999. Diamonds have also been reported from the Dreikeesh area in Syria in 2002. These occurrences are related to the Cretaceous volcanic activity.

In 1999 Shefa Yamim began to explore the Mt. Carmel volcanic rocks and sedimentary deposits of their erosional products in the Kishon River Valley. During the period 1999 to 2000, drilling of 10 deep boreholes took place over an 8km distance along the down-valley profile of the lower reaches of the Kishon River Valley, located immediately north of Mt. Carmel. This drilling by Shefa Yamim was done using a 63mm diameter rotary drill. The core was analysed in terms of its heavy mineral content and lithology. Detailed mineralogical analyses of the heavy mineral fraction obtained from the Kishon River valley core revealed abundant KIMs. A total of 64 diamonds (63 micro-diamonds of 0.12ct in total and one 0.88ct stone) were also recovered. ***Moissanite – recovery of above 3,000 natural rare crystals to date and the biggest size in the world at 4.14mm.***

Synthetic silicon carbide (SiC) (Appendix I) is well known in the gem and jewellery market as synthetic moissanite. Natural SiC is very rare and has been found as tiny crystals (usually less than 1.5mm) in only a few deposits worldwide (Bauer *et al.*, 1965; Shiryayev *et al.*, 2011 and references therein). However, Gemmological Institute of America Inc (GIA) report of Fritz *et al.* (2015) states that: Over the past 18 years, more than 3,000 crystals of natural moissanite have been discovered by Shefa Yamim. The crystals come from primary and alluvial deposits. In 2000, the company unearthed moissanite crystals ranging from 0.1 to 1mm in size; two years later, 2.2mm crystals were found. In 2009, a 3.5mm moissanite discovery set a "World Record" (Roup *et al.*, 2009), only to be surpassed in August 2012 by a crystal measuring 4.1mm. During 2015 an even larger crystal of 4.14mm was recovered - the largest crystal to date (Appendix I).

A few facts about moissanite (SiC) - a globally rare mineral:

- Named after Henry Moissan, a French-Jewish Nobel prize-winning chemist in 1906. Moissan discovered the mineral in a meteorite rock within the Diablo Canyon, Arizona, in 1893.
- It is a very rare and scarce mineral (in size and in quantity) and found at only a few sites around the world. Its size in all other discoveries is smaller than 2.2mm.
- Composition: SiC – silicon carbide.
- Hardness: 9.25 – 9.5 Mohs scale (diamond being 10).
- Specific gravity (g/cm³): 3.1 – 3.2 (diamond being 3.52).
- Refractive index (brilliance): 2.64, higher than that of a diamond (2.42). Therefore, moissanite is brighter and more brilliant than diamond.
- Moissanite temperature stability field: 1,100 – 1,400 °C. Similar to the temperatures within the diamond stability field (or even higher).
- Research shows that natural moissanite occurs as inclusions in diamond crystal lattices, xenoliths and ultra-mafic rocks (kimberlite and lamproite).

During the years 1999 - 2000 the company initiated a surface sampling programme. Surface samples collected on the flood plain of the Kishon River during 2003 to 2004 indicated the presence of two populations of heavy minerals (Levin and Kalmanovich, 2006). The Corundum – Moissanite population was found to be prevalent along the northern part of the flood plain and northern valley flanks indicating a source to the north of the Kishon River Valley. The predominantly Pyrope – Spinel population occupying the southern flanks of the Kishon River valley suggests Mt. Carmel as the provenance. From here on the research was focused on the samples that produced the highest number and biggest pyrope garnets. Plots of this data indicated tributaries draining Mt. Carmel as the conduit of garnet supply.

In early 2003 Shefa Yamim started to collaborate with De Beers, South Africa. The collaboration included field work, laboratory processing and analysis of petrographic and micro-probe data. To date several rock and soil samples were collected for analysis in the De Beers laboratories during each of the four field visits by De Beers's geologists. De Beers Exploration (Africa) division followed-up with Shefa Yamim on its diamond recoveries from the drilling programme in the lower Kishon Valley. Based on infrared characteristics and surface texture analyses, De Beers concluded that the diamonds recovered from the Cenozoic fluvial sediments were natural diamonds and not contaminated by synthetic diamonds from drill bits (Viljoen, 2003). In addition, the De Beers Exploration (Africa) team recognised the abundance of typical KIMs, which they reported as garnet (predominantly eclogitic type), ilmenite (including picroilmenite), clinopyroxene and spinel (chromite), from both rock and soil samples collected by its geologists (Apter and Burgers, 2004; Burgers, 2004).

Significantly, the De Beers team also used conventional follow-up methods (based on the largest garnet grain recovered by Shefa Yamim by 2003) to identify the Mesozoic Rakefet volcanic body as a primary source of typical KIMs (Apter and Burgers, 2004; Burgers, 2004). Rakefet also produced one micro-diamond from a ca. 200kg rock sample collected by De Beers's geologist (Hodgkinson and Tainton, 2004). During the same investigation, Kerem Maharal was identified as a primary source of moissanite and the Rakefet pyroclastic – volcanoclastic rocks were reported as having sufficient kimberlitic affinities to be called a kimberlite rather than a para-kimberlite (Burgers, 2004). The De Beers team also dated detrital

zircons collected from the Kishon Valley sediments, returning a range of ages from 2 490 million years (Ma), 2200Ma, 650Ma, 166Ma, 71Ma to 11Ma. The De Beers Africa Exploration findings were presented to the Israel Geological Society in a public lecture in March 2005.

In response to the consistent reporting of KIM's by Shefa Yamim to the Inspector of Mines in its statutory reports up to 2004, that authority requested Magma Ltd to collect and analyse three 25kg samples – from the Kishon River, Kishon terrace and Rakefet – for their mineral compositions, but not diamond content. This work corroborated the KIM's results reported by Shefa Yamim (Kalmanovich and Roup, 2007), thereby satisfying the authorities that its results were indeed indisputable (Gore, 2005).

Field investigations by Shefa Yamim led to the discovery of distinctly volcanic and pyroclastic rocks interbedded with the ubiquitous limestone country rock. While it was known that Upper Cretaceous 'alkali-basalts' occurred in the Mt. Carmel area, these had not been specifically targeted or sampled. Independently back in South Africa, De Beers also studied the samples they collected at Mt. Carmel.

In February 2004 a De Beers report was produced supporting the Shefa Yamim mineralogical findings from the Kishon River valley. The garnets were all found to be eclogitic, possibly high-pressure varieties. Garnets from the boreholes in the alluvium of the Kishon River valley are similar to those from the volcanic and pyroclastic rocks. The borehole-derived garnets were described by De Beers as "low Cr eclogitic, not megacrysts as the CaO content was marginally too high, being similar to Kaapvaal Group-1 and diamond-bearing eclogite in terms of analysed CaO, FeO, MgO, and unlike lower crustal eclogite and granulite garnets." The spinels (chromite) and clinopyroxenes complement each other to imply a derivation from a shallow spinel-peridotite 'mantle' and not from the diamond stability field (Apter and Burgers, 2004).

The ilmenites present two separate chemical populations. A larger kimberlitic population suggests a shallow mantle origin and complements the spinel and clinopyroxenes with respect to mantle origin. The other minor ilmenite population is more typically kimberlitic (although Cr₂O₃ values are low), possibly complements the eclogitic garnets, and compositionally may be derived from a deeper mantle or higher-pressure regime.

Based on the indicator mineral chemistry of the minerals analysed, the source rock appears to have two separate mantle regimes. A shallow, non-diamond stability field of a peridotitic source and a higher pressure (deeper) eclogitic source which, based on the garnet compositions, is 'possibly diamondiferous'.

This indicator mineral chemistry provides an indication of the diamond potential of the source rock, but the confidence with which this technique may be applied is more typically applicable to cratonic or shield settings (i.e. thick lithosphere). The setting of the Mt. Carmel source on the flank of a recently active rift-zone is uncommon considering a possibly diamondiferous source. It is therefore crucial to note that the final word on the Mt. Carmel source rock being diamond-bearing depends on whether it can positively demonstrate that diamonds can be derived from this rock.

The four samples collected for petrographic analyses were described by De Beers as more akin to being “kimberlitic” in nature while an alkali-basalt or basanite source is excluded (Apter and Burgers, 2004). Petrographically the samples were classified as re-sedimented and primary pyroclastic, crater facies, kimberlitic rocks. Some samples exhibit an oxidised, granular, matrix-supported, poor- to moderately-sorted, finely-bedded, carbonate-rich re-sedimented volcanoclastic kimberlite. Altered, massive, matrix-supported, moderately-sorted, volcanoclastic kimberlite and clast-supported, poorly sorted, welded, lapilli tuff kimberlite was also described. Geochemically the major and trace elements from the four samples from Mt. Carmel are kimberlitic with variable dilution by crustal material. The trace element ratios clearly indicate a kimberlitic nature with a possible metasomatic influence or enriched source similar to kimberlites from West Africa.

A report by De Beers in June 2004 documents the recovery of one diamond from the samples collected at Mt. Carmel (Burgers, 2004). The sample size was 252.08kg and handled according to standard QA/QC procedures and dispatched to De Beers, South Africa for analyses. The size of the stone recovered was 0.000003ct. These findings led Shefa Yamim to include the following four Mt. Carmel volcanic bodies (previously part of the Prospecting Permit): Rakefet Magmatic Complex (RMC), Muhraka, Har Alon and Beit in all future Exploration Permit applications. In addition, a sampling programme running in parallel with the alluvial exploration was designed for the Upper Cretaceous volcanic outcrops in the Mt. Carmel area. In the report, De Beers's geologists conclude: ***"... Geochemically the major and trace elements from the four samples from Mount Carmel are kimberlitic with variable dilution by crustal material. The trace element ratios indicate clearly a kimberlitic nature with a possible metasomatic influence or enriched source similar to kimberlites from West Africa"*** (Burgers, 2004) as mentioned above.

During November to December 2004, three large diameter (1m) auger holes were drilled in the Distal Reach of the Kishon River valley that produced most favourable results during the 1st drilling phase. Further mineralogical studies yielded 11 more diamonds from the three boreholes.

The impetus provided by the De Beers Exploration (Africa) collaboration led Shefa Yamim to investigate the potential of the primary sources on Mt. Carmel more thoroughly between the years 2006 – 2014 (Kalmanovitch, *et al.*, 2008; Toledo, *et al.*, 2010). Simultaneously the large Galed geophysical anomaly identified earlier in the Ramot Menashe area was followed-up with ground surveys (Roup and Fedikow, 2011) and sampling continued in the Kishon River catchment on the secondary deposits.

At the end of 2009 to early 2010, Shefa Yamim set up a comprehensive GIS database to handle the large volume of sample information and spatial data available for its campaign. In addition, Shefa Yamim moved to larger premises in Akko (5,000m²) where its treatment facility capacity was increased to handle small bulk samples generated from both primary source rock and secondary alluvial target deposits.

Shefa Yamim identified a multi-commodity assemblage that included the mineral assemblage the company earmarked as its priority exploration objective. This multi-commodity selection is called the TMA comprising two mineral suites: the HIM (Heavy Industrial Mineral Suite - garnet, rutile, ilmenite,

zircon, corundum) and DMCH (Diamond, Moissanite, Corundum - sapphire, ruby, Carmel Sapphire, Hibonite) suites.

On Mt. Carmel, Shefa Yamim explored thirteen of the prominent Mesozoic volcanic bodies/complexes (an additional Mesozoic volcanic body is Um El-Fahm) for their TMA (DMCH suite: diamond, moissanite, corundum-sapphire, ruby) and KIM's content (Fig. 4). One of the most significant discoveries in this phase was the recovery of abundant moissanite from both primary sources as well as derived secondary deposits, as this mineral is rare in its natural state globally (Roup, *et al.*, 2009; Gnos, 2010; Fritz, 2013). To date, Shefa Yamim has also found the world's largest two recorded moissanite crystals: 4.1mm (bulk sample 982; August, 2012) (Fritz, 2013; GIA, 2015) and 4.14mm (bulk sample 1124, November, 2015) in length respectively.

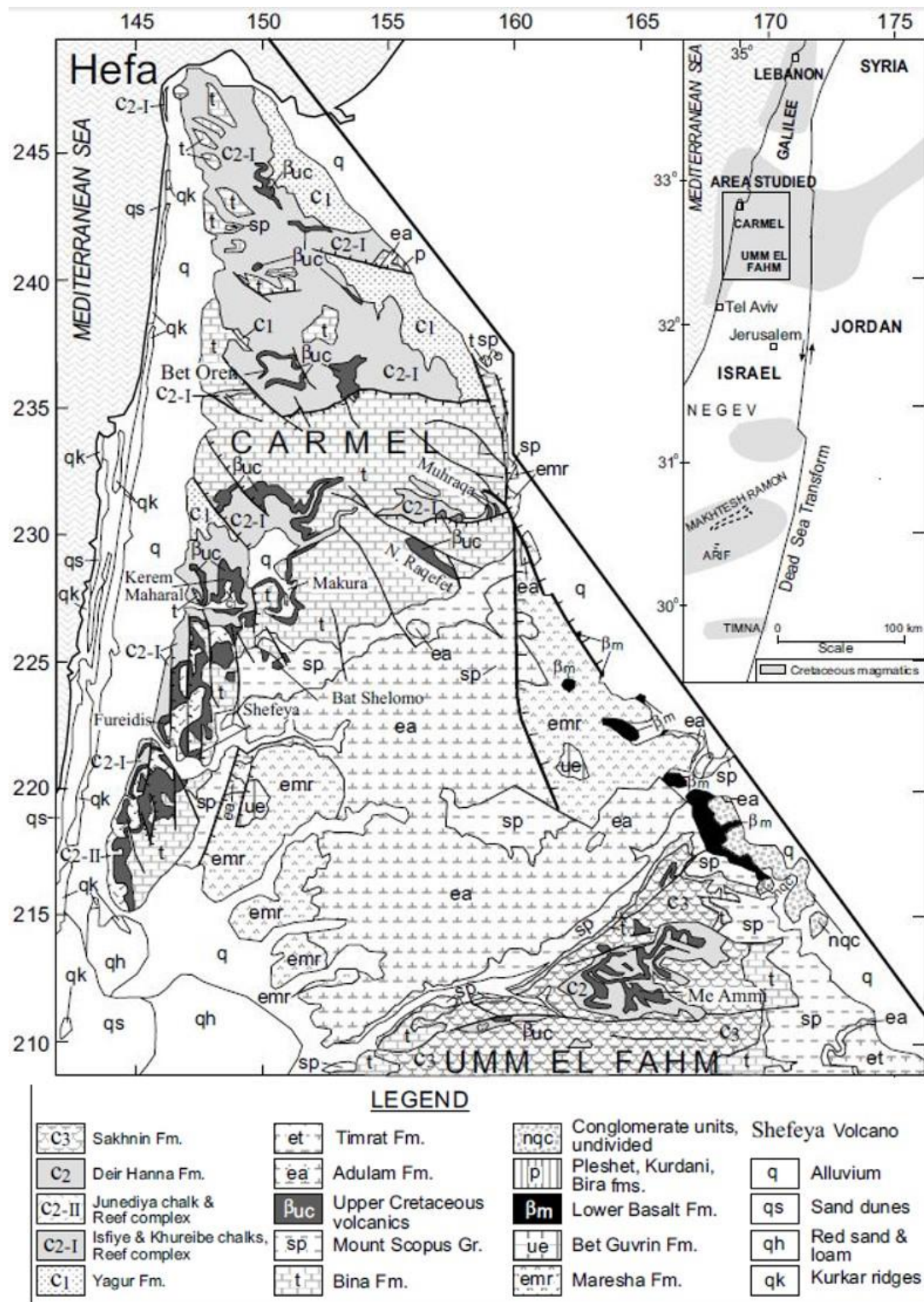


Figure 4: Location of 14 Mesozoic volcanic (magmatic) bodies on Mt. Carmel by Sass (1980). Ten of these volcanic bodies are currently being prospected and explored by Shefa Yamim.

To confirm Shefa Yamim's reports of the recovery of KIM's from primary sources on Mt. Carmel (Israel) during this phase of its exploration campaign in 2011, the Inspector of Mines sent two rock samples from the Bat Shelomo and Rakefet volcanic complex to the SGS Canada Inc. laboratory for processing and recovering KIM's. This laboratory reported the presence of abundant KIM's, but noted that these grains needed to be electron micro-probed (geochemically analysed) before any further conclusions could be drawn regarding any diamond potential (SGS, 2011). However, this additional analysis was not required

by the Inspector of Mines, but rather a confirmation that at least two of Mt. Carmel's primary volcanic complexes hosted KIM's as had been reported by Shefa Yamim. It must be noted that the use of the term "KIM's" does not have any connotation to the diamond potential – this can only be assessed after the KIM's have been geochemically analysed (mostly using an electron microprobe-type tool). At this stage the Mesozoic Rakefet magmatic (volcanic) complex is the only primary source in the Kishon catchment to have yielded the full TMA (DMCH) suite, as well as the complete range of KIM's (Toledo, *et al.*, 2010).

At Ramot Menashe 149 stream samples were collected to-date that yielded KIM's, corundum, moissanite including eclogitic and peridotitic garnets that have been analysed for their mineral chemistry (396 garnet grains). A further 92 soil samples were processed as part of a geochemical survey (Roup and Fedikow, 2011) and several ground magnetic surveys were run over the Galed anomaly (Rybakov, 2009; Fritz, 2013; GRS, 2014).

In the Kishon River catchment, Shefa Yamim focused largely on the secondary deposits in the search for alluvial placers that potentially host the complete, or part of, the DMCH suite. To date, more than 700 alluvial samples were taken throughout the catchment, 39 trenches and pits were excavated as mini bulk samples, 158 boreholes were drilled to a maximum depth of 300m, state-of-the-art geochemical soil sampling surveys were done, and some 407 grains were analysed for mineral chemistry.

The Kishon River drains considerable parts of Mt. Carmel and the Yizre'el Valley with its Mesozoic mafic and ultra-mafic volcanic rocks, and Cenozoic mafic volcanic rock substrates rendering the Kishon River valley, with its secondary Late Cenozoic valley-fill sediment deposits, a high priority target. Intensive drilling was done by Shefa Yamim in the Kishon Valley, in particular the Mid Reach section, as shown in Figure 8.

Surface and subsurface samples collected from the Mid and Distal Reaches of the Kishon Valley have yielded significant quantities of the complete TMA (DMCH suite). The recovery of moissanite and corundum, including the gem varieties of sapphire (blue, up to 5.72 carats in weight) Carmel Sapphire 9up to 33.3 carats in weight), ruby (pink, red up to 1.706 carats in weight) and Hibonite up to 2.83 carat in weight) from the secondary deposits indicate primary sources within the Kishon catchment. Sampling by Shefa Yamim has demonstrated that the Rakefet Magmatic (Volcanic) Complex and the tributary stream that cuts through the body are major contributors of both sapphires and rubies to the Kishon River valley sediments.

Moreover, the exploration results further show that the Mesozoic Muhraka basalts on Mt. Carmel and the younger Cenozoic (Neogene) Lower Basalts and Cover Basalts host corundum, including sapphire and ruby (Wald and Toledo, 2016). Therefore, it is noteworthy that corundum, a relatively common mineral, is linked to alkali basalt terrains globally and that its gem varieties of sapphire and ruby are associated with placers derived from such terrains (Guo, *et al.*, 1996a; 1996b). The high pressure upper mantle origin of corundum is also shown by kimberlite-borne, corundum-bearing, eclogite xenoliths and corundum as unusual inclusions in diamonds (Viljoen *et al.*, 1999).

The narrowing of the Kishon Valley between the Yizre'el and Zevulun Valleys should facilitate placer formation in the basal gravel beds of the Kishon River in this Mid Reach zone between Tel Kashish and the Jalame Junction/Turkish Bridge area (Fig. 5). Trapping of heavy minerals in these basal gravels deposited under an increased fluvial energy regime is further promoted by the introduction of oversize clasts (Jacob, *et al.*, 2006) from the short-reach, steep streams draining Mt. Carmel along the left bank of the Kishon Valley Mid Reach.

The heavy minerals are most likely to be preferentially concentrated within the basal 2-4m of the Kishon River gravels. As the Kishon River is a comparatively small-scale hydrological system, with an overburden to basal gravel stripping ratio around 2.5:1, this fluvial placer is readily accessible in contrast to the deeper (>20 m deep), interbedded marine placers farther downstream in the Distal Reach that also host the DMCH suite (Fig. 6).

Therefore, the Mid Reach of the Kishon Valley, a transient fluvial placer hosted palaeo-Kishon basal gravels preserved in low terraces, flanking the modern course between Tel Kashish and Jalame Junction (Toledo *et al.*, 2015; Toledo *et al.*, 2016), is the most attractive, accessible secondary deposit target available to Shefa Yamim in this exploration campaign. This 4.5km long multi-commodity placer contains the TMA of DMCH of sapphire and ruby and Carmel Sapphire (the DMCH suite), as well as the heavy industrial minerals (the HIM suite) of zircon, rutile, ilmenite and garnet (Toledo *et al.*, 2015).

During the mapping and drilling campaigns in the Kishon Mid Reach (146 holes (125 holes in Zone 1 and 21 holes in Zone 2); 1,370.55m drilled in total (1135m in Zone 1 and 235.55 in Zone 2)); a total length of 313m intersected the gravel) two high-interest zones have been modelled volumetrically using ArcGIS®, Voxler®, Strater® and Surfer® software, namely Zone 1 and Zone 2 (Toledo *et al.*, 2016).

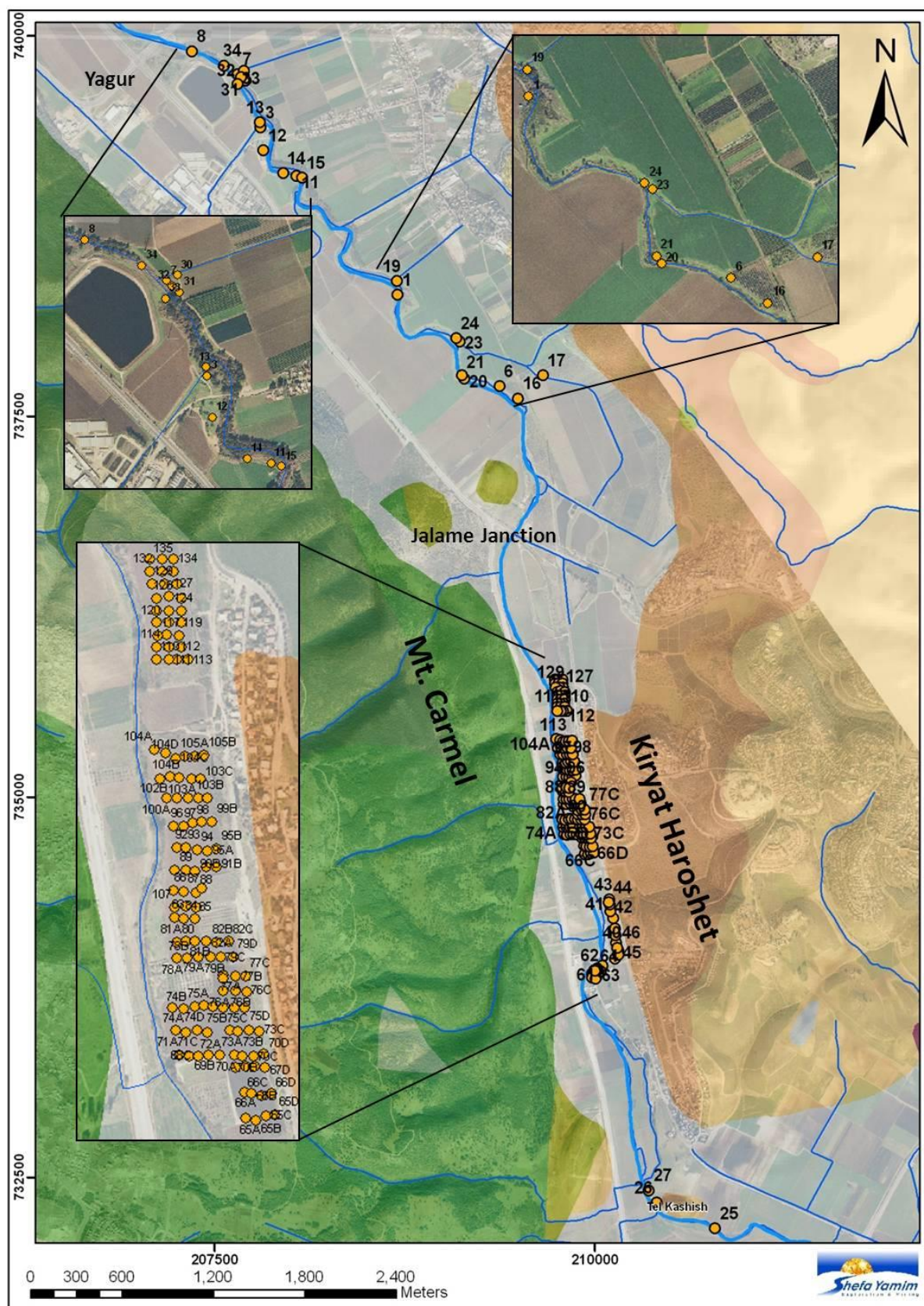


Figure 5: Shefa Yamim borehole locations along the Kishon Mid and Distal reaches from Tel Kashish via the Zevulun valley to the Mediterranean outlet. Orange circles - Large diameter (Vidia) Shefa Yamim boreholes, down to 80m depth; Yellow circles - 1999-2000 drilling campaign (Vidia) small diameter, including core samplings, down to 300m depth.

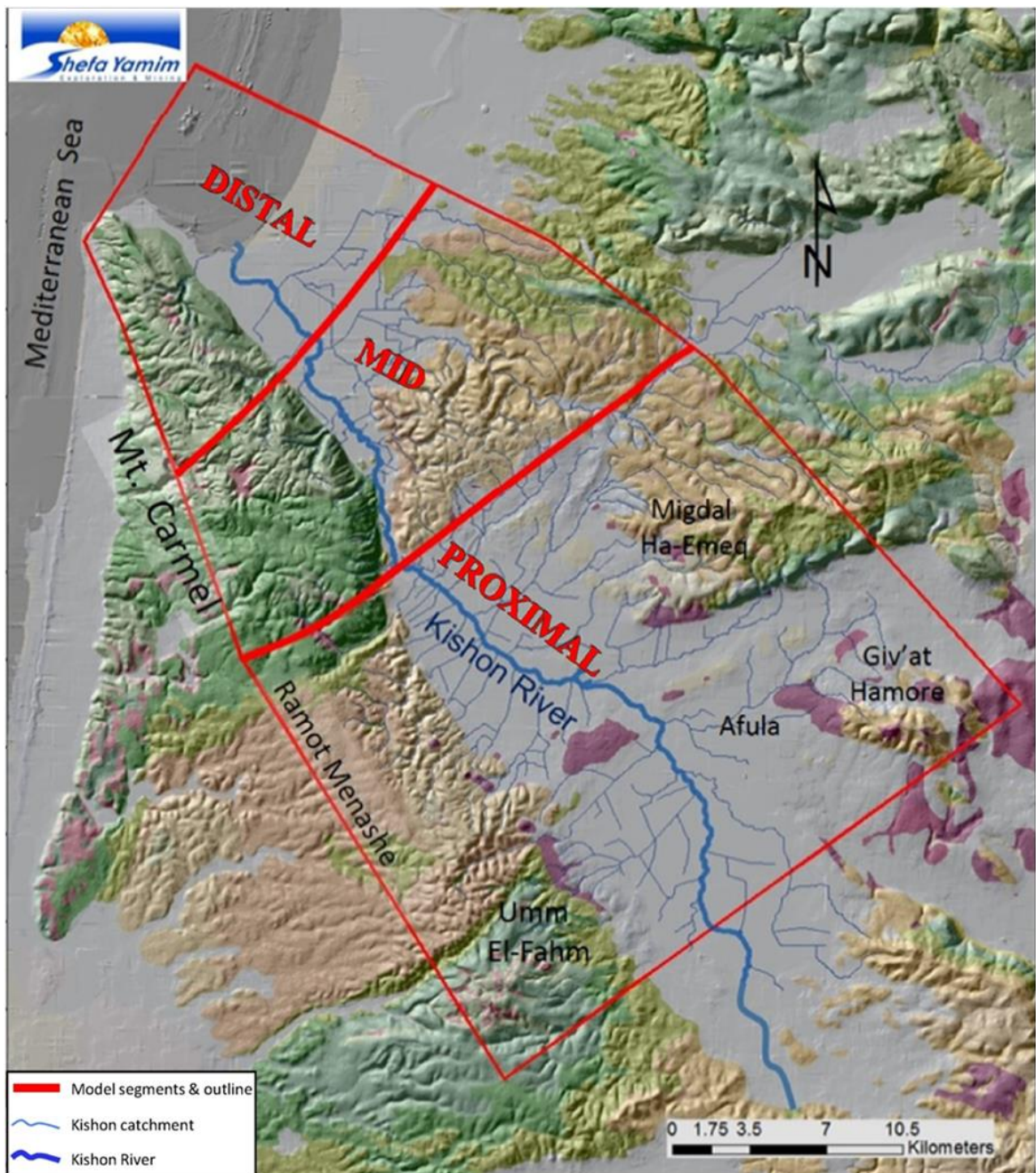


Figure 6: The Kishon River divided into Proximal, Mid Reach and Distal sections.

External Scientific Collaboration

The unique challenges faced by Shefa Yamim in its exploration campaign are emphasized by the unusual occurrence of high temperature and pressure minerals, notably, diamonds, moissanite and corundum in an off-craton platform setting has been highlighted by Coopersmith and Toledo (2013). To unravel the problem posed by these geological challenges Shefa Yamim actively strives to get the global geological fraternity involved in its exploration.

Shefa Yamim is collaborating with geological and exploration consultants that specialise in a wide spectrum of Earth Science fields e.g. geochemistry, exploration of alluvial deposits, and geophysics. On the primary source investigations, Shefa Yamim is collaborating with Prof. Bill Griffin and his research team from Macquarie University, Australia since January 2014. Mr. Dave (David) Apter, ex-De Beers Africa geochemist and currently an independent geological consultant to Shefa Yamim, collaborates with

the company since 2004. The scientists focus on the presence of mantle-derived minerals, including garnet (peridotitic and eclogite), clinopyroxene, ilmenite, moissanite and diamond as well as corundum, in the off-craton, rift-related geological setting of northern Israel.

To date Apter (2014, 2015) analysed the mineral chemistry of all the KIM grains that have been SEMQ electron micro-probed from Shefa Yamim's exploration campaign, of which 392 grains were done by De Beers Geoscience Centre, Johannesburg, and 2,039 grains by Mineral Services (Pty) Ltd, Cape Town, South Africa. Apter also confirmed the presence of the classic kimberlite indicator mineral suite (KIM) comprising unique chemical varieties of garnet, clinopyroxene, ilmenite, and spinel/chromite in the size range 0.30 - 0.425 - 0.71 - 1.00mm.

The main analyses have been published in an Extended Abstract and Poster presented at the Kimberley Diamond Symposium & Trade Show, Geological Society of South Africa, Professional Programme meeting, 11 - 13 September 2014.

Apter (2014) and Apter *et al.* (2015) determined the major element oxide weight percentages in a variety of scatter plots commonly used for kimberlite and diamond exploration and his principal conclusions were:

- The CPX xenocrysts from the Mt. Carmel volcanics show a geothermal profile for Iherzolitic mantle stretching from ~Moho depths (<50km) (Fig. 7a) to well over 100km: see Temp * Depth/Pressure plots in Fig. 7b.
- Re-fertilisation/depletion - bottom-left to top-right gives increasing depletion along a relatively constant pressure. The points are shaded by pressure (8 colours for 0-80/10 Kb).
- The data illustrates a complex relationship between temperature/composition with pressure/depth. An increase in heat flow with decreasing pressure/depth is observed using Hasterok and Chapman (2011) geothermal models.
- The improved data resolution reveals a small, but relatively high-pressure population of significant interest. This relatively small deeper/cooler population from RMC is more like 'kimberlitic' CPX (see blue dots in Garnet Peridotite field in Na*Cr + Al plot). With a depth >100km this population is more typical of thick cratonic 'kimberlite' borne CPX xenocrysts. This limited, but deepest, Mt. Carmel CPX population is represented by a 'range' in composition with deepest grains more refertilised by the underlying asthenospheric mantle (fluids/magma). However, such asthenospheric 'alteration/refertilisation' has influenced the entire mantle column. Fluid interaction across the column may be responsible for multiple mantle magma sources (Figs. 7c and 7d).
- A mantle derived population that reflects high T at shallower levels due to high heat flow: the potential source for shallow xenoliths as reported by Mittlefehldt (1986) and Kaminchilk (2014).
- Improved insights from the Na*Cr + Al diagram show this compositional relationship is consistent with pressure. This observation enhances the value of this diagram in diamond exploration where ultra-high pressure and low refertilisation CPX indicate best potential for GP-hosted diamonds. That is where CPX data points show highest pressures with least refertilisation (i.e. diagram top-right;

increasing pressure (isobars) from bottom-right to top-left; re-fertilisation from top-right to bottom-left along isobars).

From these results, Apter (2014) and Apter *et al.* (2015); (Figs. 7a to 7d) concurred with Mittlefehldt (1986) that the Mesozoic mafic and ultra-mafic bodies on Mt. Carmel had sampled xenoliths / xenocrysts in the upper mantle and lower crust between depths of 60 – 110km. In a recent study, however, Kaminchik (2014) obtained results from a limited suite of xenoliths that pointed to even shallower depths of around 45km.

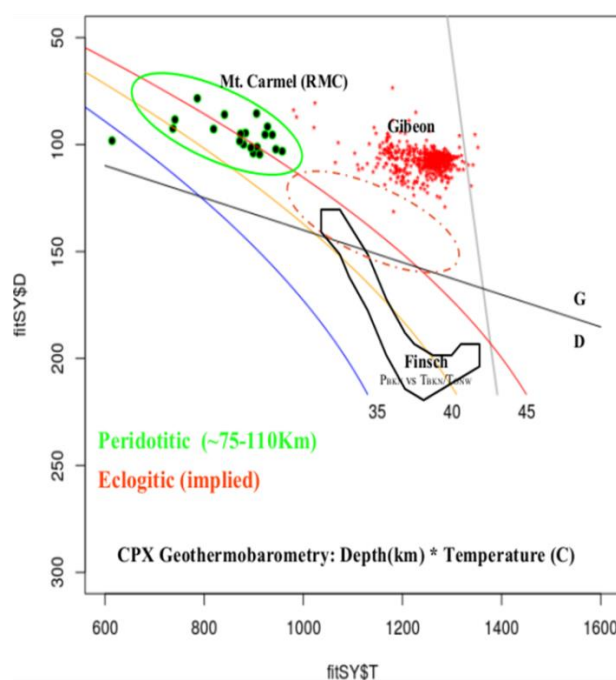


Figure 7a: Temperature*Pressure/Depth plot for the Iherzolite cpx thermobarometry showing predominant derivation from 75 – 110km depth (Apter, 2014, following Nimis & Taylor, 2000, but enhanced by integration with Nimis & Grutter, 2010). A model geotherm of $\sim 45 \text{ mW/m}^2$ was estimated. The Mt. Carmel cpx results point to a shallower and cooler origin than those from the off-craton, Gibeon kimberlite cluster in Namibia, although both localities are above the diamond stability field line. However, the cpx results from a South African diamond clearly illustrate the cratonic kimberlite model with the bulk of the results lying well within the diamond stability field on a $\sim 40 \text{ mW/m}^2$ model geotherm that is typical for the southern African Kaapvaal craton (Apter, 2014).

Shefa Yamim collaborates with Prof. Bill Griffin, an expert in Earth's mantle geology and his research team on corundum crystallisation processes and their relationship with the natural, rare mineral moissanite occurrences. Samples for this research have been drawn from several primary sources on Mt. Carmel and from alluvial deposits within the Kishon Catchment. The results of this continuing research may assist in addressing key questions regarding "Deep Earth" geology. A poster and abstract focusing on this topic were presented at the Israeli Geological Society Conference, March 2015 and January 2016 (Griffin *et al.*, 2015; Griffin *et al.*, 2016, (Appendix II).

Carmel Sapphire

Prof. Griffin contacted Shefa Yamim in January 2014 in search for moissanite crystals to be included in a survey of Si and C isotopes in this mineral, mainly using material from kimberlites. Shefa Yamim kindly provided the material needed. Apart from moissanite crystals, Shefa Yamim shipped samples of sapphire,

ruby and corundum as well. An ongoing exciting and productive collaboration is carried out ever since. At the beginning, the target was to better define the corundum-moissanite findings provenance – or rather is there a genetic connection between the two minerals occurrences? The ongoing research provides some great scientific results including unique large corundums (till 33.3ct) whose polished specimen revealed that they in fact have unique qualities and considerable potential as gemstones. The polished specimen is termed "Carmel Sapphire".

"... Therefore, we have suggested that the titanium-rich corundum should rather be designated Carmel Sapphire, since it is unlike gem-corundum known from elsewhere in the world". Prof. Griffin, January 21, 2016.

As the Carmel Sapphire makes up a large portion of the material recovered from the samples, this finding implies a significant increase in the value of the resource. According to the research findings, the corundum evolves from oxygen depleted zones within the upper mantle (Griffin, 2016). Prof Griffin and his team's ongoing research on the samples from the Kishon River valley, RMC and Migdal Ha-Emeq led to the discovery of yet another gemstone, the very rare gem hibonite as reported in October 2016 (Appendix III).

Abundant moissanite in Cretaceous pyroclastic rocks in northern Israel is accompanied by xenoliths and xenocrysts of skeletal and hopper-structured corundum crystals, which have trapped pockets of the melts from which they grew. The melts contain highly reduced mineral assemblages, including native elements such as Ti and V; these imply fO_2 (fugacity values) as low as IW-12. Detailed study of this material suggests it crystallised due to interaction (reduction and desilication) between mafic-ultramafic magmas and highly reducing fluids. Such fluids can be derived from the deep Earth, since C-O-H fluids at the fO_2 of the IW buffer are completely dominated by CH_4+H_2 .

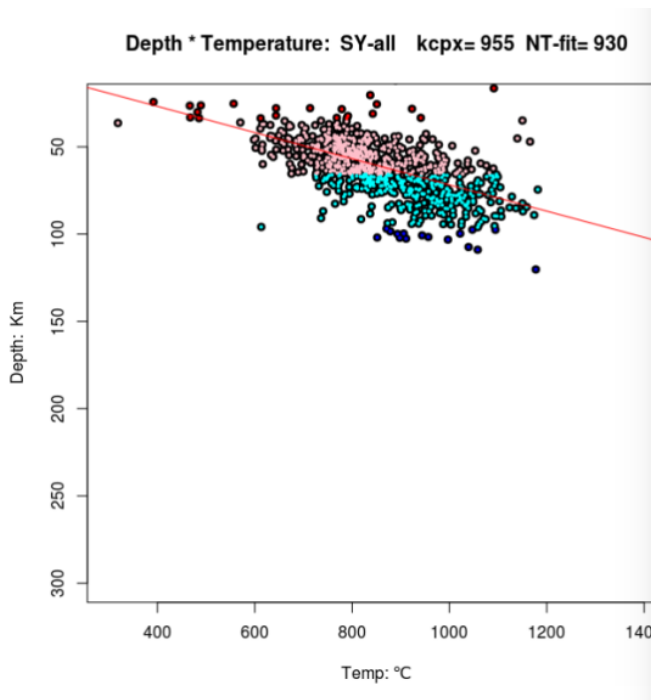


Figure 7b: Temp * Depth/Pressure plot showing ~Moho depths (<50km) to well over 100km;

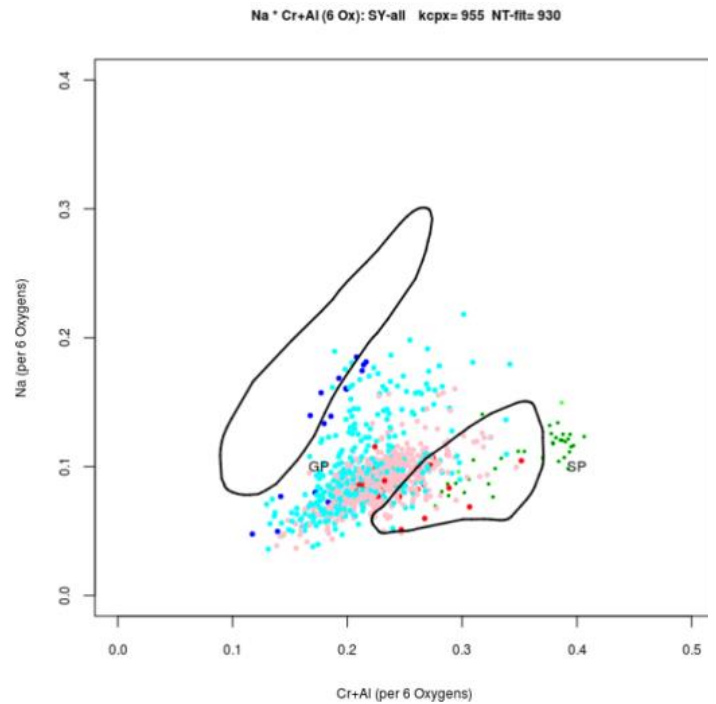


Figure 7c: Na * Cr + Al diagram of cpx chemistry (Na, Al, Cr) and the geothermal profile. T * P/D using the Nimis & Taylor 2000 thermo-barometer. Increasing pressure: from bottom-right to top-left.

The rare presence of diamonds, along with an abundance of the two other high-pressure minerals, moissanite and corundum (including sapphire and ruby), in several Mesozoic primary sources on Mt. Carmel and in the Cenozoic Kishon Valley secondary deposits, points to an unusual, off-craton geological history that warrants further exploration and scientific explanation.

Likewise, the presence of corundum in both Mesozoic mafic and ultra-mafic volcanics and younger Cenozoic mafic volcanics supports the potential for sapphire dominant (and to a lesser extent, ruby) placers to have been developed along the Kishon Valley, especially corundum in volcanic sources (Guo *et al.*, 1996) in the Mid Reach zone between the Yizre'el and Zevulun Valleys (Fig. 9).

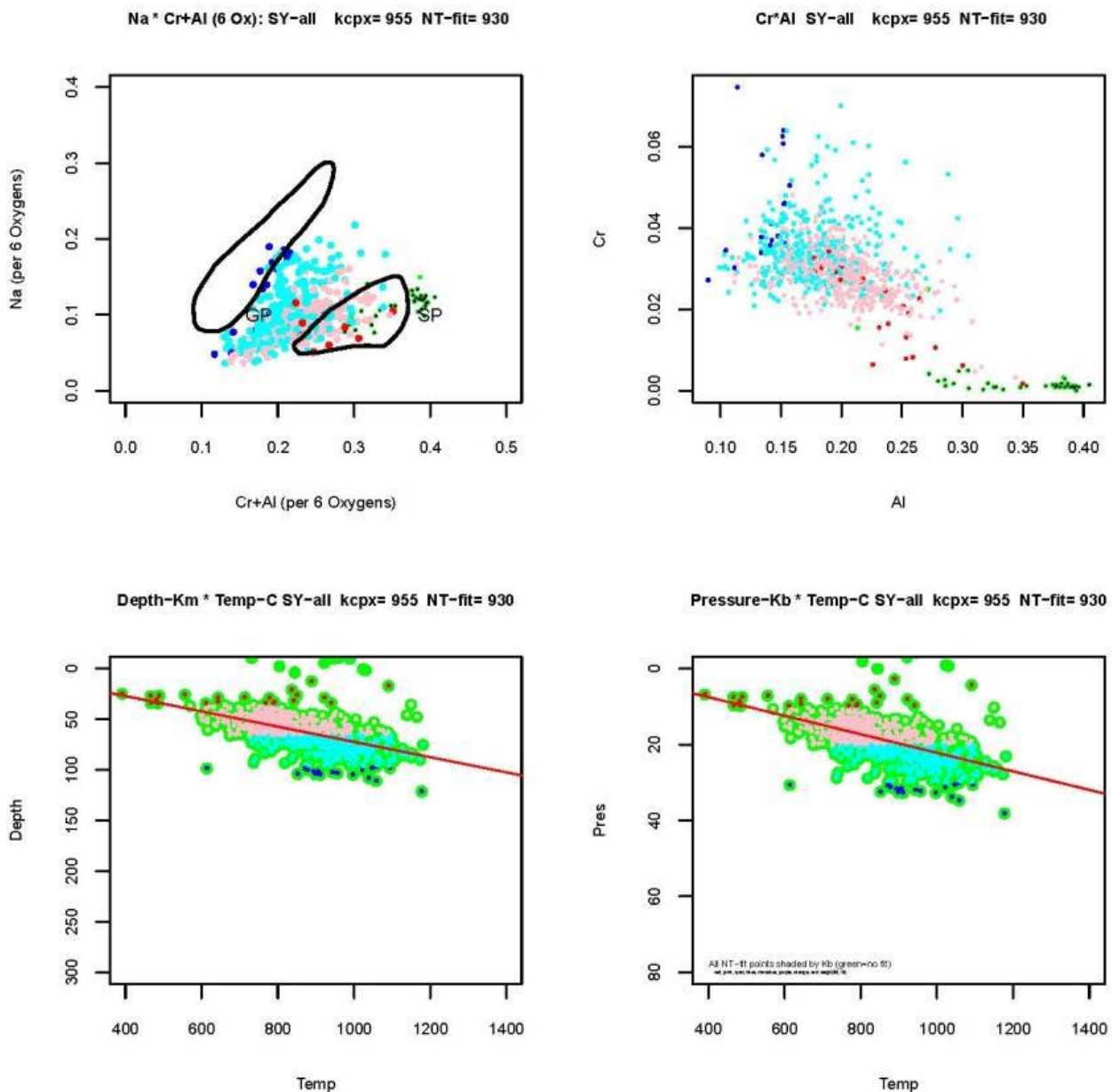


Figure 7d: Upper left Na*Cr+Al diagram shows cpx derive predominantly from spinel-Iherzolite (SP field) and garnet-spinel-Iherzolite (i.e. intermediate between GP and SP fields). However, a small population is derived from (just within) the garnet-Iherzolite field; this population is more typical of deep cratonic 'kimberlite' borne cpx xenocrysts.

Consequently, and incorporating the available geological mapping (Sneh *et al.*, 1998; Segev and Sass, 2009a, 2009b), a robust “source to sink” geological model (Fig. 8) has been developed to guide placer exploration in the Kishon catchment. This model also serves to highlight opportunities for further investigation into the primary sources within this catchment and in the adjacent areas of Mt. Carmel, Ramot Menashe and Migdal Ha-Emeq (Toledo, *et al.*, 2014; Fig. 8). The Kishon drainage has been subdivided into three geomorphic reaches along its length that covers the Exploration Permit and Prospecting Permits held by Shefa Yamim, namely: Proximal Reach, Mid Reach and Distal Reach (Figs. 6 & 8). Each reach has varying degrees of placer potential that represents the potential for both Cenozoic placer formation and for primary source inputs from the Mesozoic and Cenozoic volcanic rock types within the Kishon catchment.

Proximal Reach: Upstream from Tel Kashish where the Kishon and its tributaries are relatively unconfined, tributaries and alluvial fans are small and therefore placer development is limited.

Mid Reach: Between Tel Kashish and the Jalame Junction (Turkish Bridge) where the Kishon Valley is most confined and narrow conditions for placer development is optimal and further assisted by the input of oversize clasts from steep tributaries draining Mt. Carmel.

Distal Reach: From Jalame Junction (Turkish Bridge) down to the Mediterranean Sea in the Bay of Haifa. This section incorporates the Kishon graben that hosts interbedded marine units of the palaeo-Haifa Bay. Best placer development due to upgrading through marine reworking, but inaccessible due to deep burial in the Kishon graben.

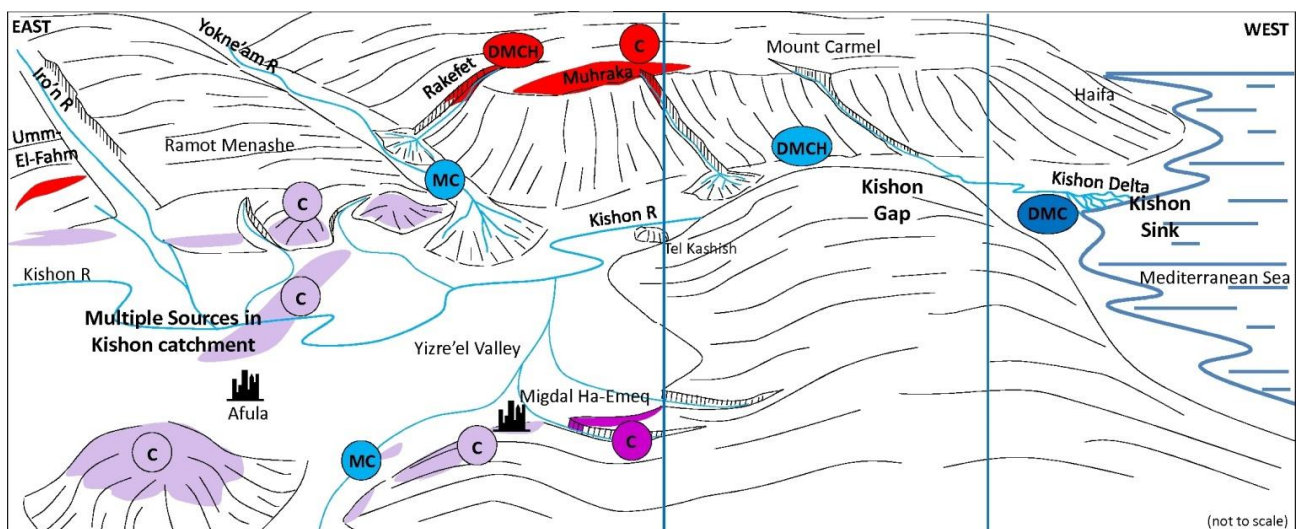


Figure 8: Schematic diagram showing the “Source to Sink” geological model guides to locate deposits of Gemstones. View approximately south and not to scale (from Toledo, *et al.*, 2014). To be read in conjunction with Figure 7 above.

- Gemstones from primary sources discovered in some volcanic bodies within the Kishon catchment, notably Diamond (D), Sapphire (C), Carmel Sapphire (C), Ruby (C), Moissanite (M) and Hibaonite (H)
- Gemstones are transported via the Kishon River from sources to a sink in the Mediterranean Sea
- The placer deposits in the sink are deeply buried and difficult to access
- The most accessible natural trap for the gemstones is in the Mid-Reach area of the Kishon Valley where the river is confined through the “Kishon Gap” to form a transient placer
- The Kishon Mid-Reach deposit has good concentrations of Carmel Sapphire, Sapphire, Ruby and Moissanite with reasonable prospects of eventual economic extraction (SAMREC, 2016)

8. GEOLOGICAL SETTING

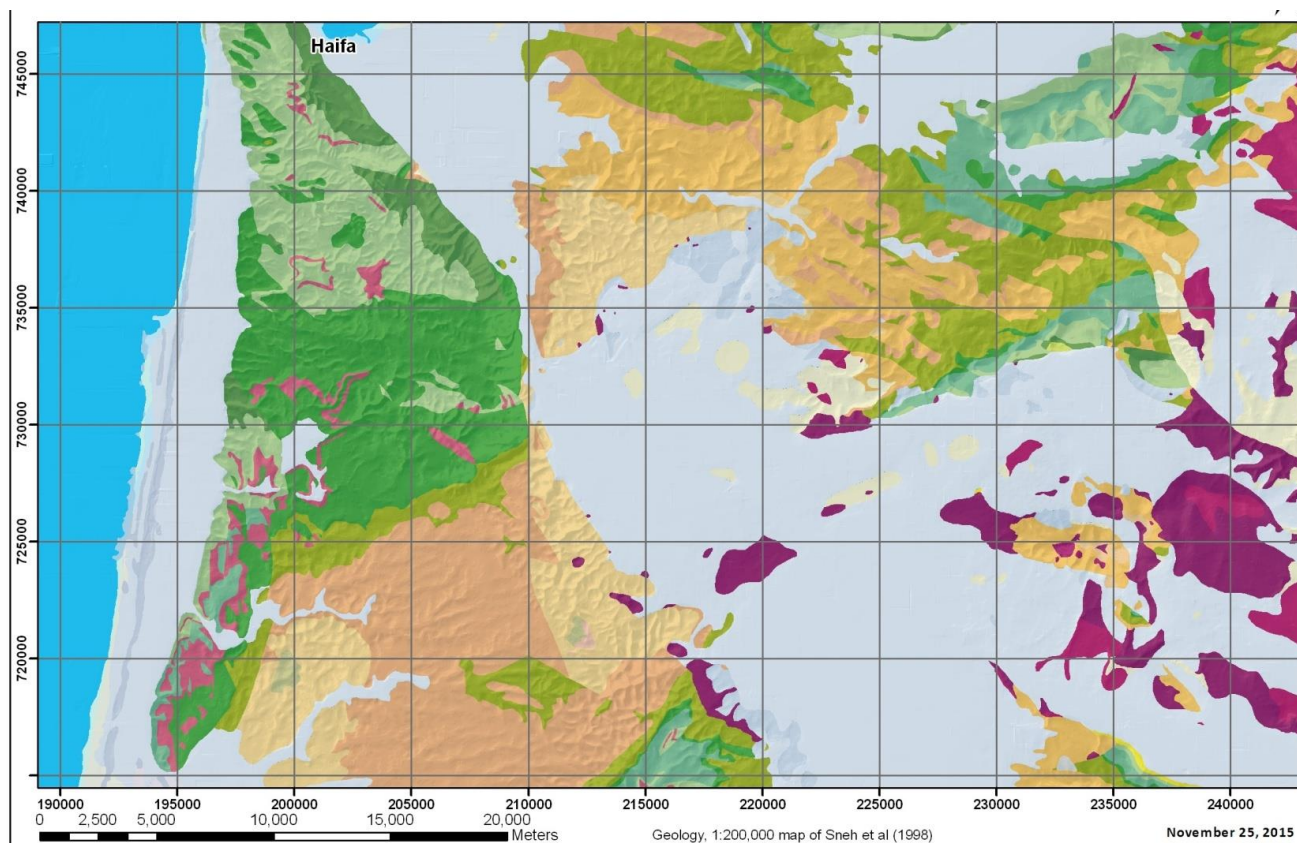
8.1 Regional Geological Setting

Israel is situated on the Arabian Plate and not in a region underlain by Archaean Craton. Instead, it flanks a recently active rift-zone rendering this area atypical as a potential high-pressure mineral producing area. During the Jurassic and Cretaceous periods, the area was situated close to the edge of a large carbonate platform. Equilibrium tectonic and depositional conditions prevailed across large stretches of the platform and can be seen in the blanket of calcareous deposits which characterises the central and northern parts of Israel. The stratigraphic column reflects a continental shelf, the Levant margin, which separated from the Gondwana Supercontinent during the Jurassic-Triassic period that eventually became submerged in the Tethys Ocean.

Cenozoic tectonics, during the middle Miocene resulted in the establishment of the Dead Sea transform, a 1,000km long suture into the deep lithosphere that possibly provided the pathway for mantle plumes derivatives via volcanic vents throughout the Galilean region (northern Israel). Volcanic rocks that intruded into, and interbedded with, calcareous deposits in the region suggest that some of the Phanerozoic volcanic activity in Israel and the Middle East occurred during a few, well-defined phases during the Jurassic, Early Cretaceous, and Neogene to Recent periods. The Late Cretaceous is generally known for its volcanic quiescence. The only exception to this is the occurrence of Upper Cretaceous volcanic rocks in northern Israel. Mt. Carmel, in particular, is noted for its complex stratigraphy, structure and inter-relationships between predominantly Cretaceous dolomites, limestones, chalks and marls, with volcanic intercalations. These stratigraphic units show marked facies changes over short distances (Fig. 9).

Mt. Carmel is a tectonic and topographically elevated, triangular-shaped area, bordered by a fault line scarp in the northeast, a syncline on the southeast and a wave-cut cliff on the west adjacent to the coastal plain. Mt. Carmel rocks are part of the Albian - Turonian marine carbonate sequence of dolomites and limestones with intermediate marly units, covered by the Senonian sequence of marls and chalks with some cherty lenses and beds. The intermittently interbedded volcanic rocks in this carbonate sequence predominantly comprise pyroclastics and minor lava flows.

From the Cenomanian to the Eocene, Mt. Carmel and its surrounding area were part of a shallow sea on the edge of a large continental platform which was partially closed off from the open sea by barrier reefs. Lateral facies changes are common in this stratigraphic sequence. These are mainly due to its location near the coast line which had not changed dramatically since the Cretaceous. The edge of the Cretaceous carbonate shelf was situated approximately 5km east (inland) of the current coastline. This prominent part of the then platform edge is now elevated to approximately 200m amsl and is being cut by tributaries (e.g. Nahal Me'arot). During periods when the connection to the open sea was restricted, dolomite and limestone successions were deposited. Chalk and marls were deposited at times of good connection to the open sea (deeper sea, less light penetration).



SYMBOL	UNIT NAME	AGE
nqc	Conglomerate units, undivided - (Neogene - Quaternary)	Neogene-Quaternary
Bc	Cover Basalt and Dalwe Basalt - (Pliocene - Pleistocene)	Pliocene
p	Bira and Geshur fms.; Kurdani Fm.; Pleshet Fm.; - (Pliocene)	Pliocene
m	Hordos Fm.; Um Sabune Conglomerate; Kefar Gil'adi Fm. - (Miocene)	Miocene
Bm	Lower Basalt and part of Intermediate Basalt - (Miocene)	Miocene
emr	Maresha Fm. - (Middle Eocene)	Middle Eocene
ea	Adulam Fm. - (Lower Eocene)	Lower Eocene
sp	Mount Scopus Group - (Senonian - Paleocene)	Senonian - Paleocene
t	Bina Fm.; Derorim, Shvita and Nezer fms.; Ora and Gerofit fms. (Turonian)	Turonian
c3	Sakhnin and Yanuh fms.; Weradim Fm.; Tamar Fm. - (Cenomanian)	Cenomanian
Buc	Volcanic rock units, undifferentiated - (Upper Cretaceous)	Upper Cretaceous
c2	Deir Hanna Fm.; Chalk and limestone rock units in Mt. Carmel; - (Cenomanian)	Cenomanian
c1	Yagur Fm.; Kammon Fm. - (Albian-Cenomanian)	Albian-Cenomanian

Figure 9: Geological map of the Mt. Carmel area and legend with the main litho-stratigraphic units.

Studies by Sass, 1968, 1980; Sass & Bein, 1982; Segev, 2005; and Weinstein, 2000, have concluded that the geological setting at the time of deposition was comparable to atoll-like environments where volcanoes erupted in a marine setting with approximate water depths of 60m. The carbonate-rich rocks represent typical barrier reef and shallow open-ocean settings, whilst the volcanic rocks are from highly explosive volcanoes that spewed out pyroclastic material such as ash, volcanic bombs and carbonate rock fragments. A modern-day example of this type of environment can be found in the Pacific Ocean where volcanoes are located around the Pacific Ring of Fire.

Throughout the Cretaceous period and well into the Neogene, plate tectonics in the Eastern Mediterranean caused a complex interplay of dynamic continental rifting followed by collision of continents. These mechanisms were the driving forces in the early evolution of Israel's landscape

development with the greater Mt. Carmel being shaped as local tectonics dissected the landscape, causing parts of it to be thrust upward, fall dramatically or shift laterally.

Plumes of hot magma rising from the mantle during this tectonically-active period resulted in extensive volcanic activity. Whilst this model of mantle plumes is favoured by many scientists for the Cretaceous volcanoes, alternative mechanisms are also being investigated by Shefa Yamim. A possible model of subduction of tectonic plates is under consideration. Eruptions along such subduction zones were violent, as is the case of the Pacific Ring of Fire. Apart from the tectonic and volcanic activity, sea levels also changed – here it either rose to drown large landmasses or fell to expose vast parts of the ocean floor.

The Kishon Valley (distal reach of the Kishon River also referred to as Zevulun Valley/graben), located immediately north of Mt. Carmel, represents an asymmetric graben with a steep south-western boundary and a gentle slope to the northeast. It is bordered by the uplifted area of the Shefar'am Tiv'on syncline in the southeast. The basin is bordered by the Carmel Fault in the southwest and the Ramat Yohanan Fault in the northeast. The Late Cenozoic valley-fill sediments provide an uninterrupted depositional record of the area and in particular the development of the Kishon River. The Kishon River is the principal drainage of the Galilee plateau and mountains and enters the Mediterranean Sea just north of Haifa.

The Kishon Graben extends westwards and offshore into the Haifa Bay and functions as depositional basin for sediments eroded from Mt. Carmel, Lower Galilee, the Yizre'el Valley, Ramot Menashe (in part) and the northern Samaria hills east of the Mediterranean Sea. This graben is bordered by the Carmel fault on its south and the Ramat Yohanan Fault to the north.

In the Mid-Miocene, regional Red Sea rifting tectonics between the Arabian plate and Sinai sub-plate resulted in the Kishon-Sirhan failed rifting. In addition, the establishment of the Dead Sea fault is also connected to this rotational tectonic regime. The Galilean basins extend over the largest splay off the Dead Sea transform within Israel (Wald, 2015). The Kishon graben represented the extreme western graben of this system. Vertical movements and tectonics have deformed the relatively tectonic quiescence regime of the Cretaceous-Eocene Levant carbonate platform and continental margins. This tectonic activity resulted in significant relief in the plates. The Carmel Fault (the southern boundary of graben) experienced vertical offset and so exposed the buried Lower to Mid Cretaceous rocks and formed the Kishon River distal base level upon which the headwater part of the Kishon drainage basin was established. Cretaceous-Eocene rocks outcrop on the eastern parts of the graben while the western part subsided and the graben started to fill with younger sediments.

The lower Galilee region is composed of a series of valleys (80km long) divided by hills of which the highest peak is 600m amsl. The following valleys (structural basins) extend from NW to SE: Zevulun, Yizre'el, Harod, Bet Shean, and cross-cut Israel's mountainous backbone, from the Mediterranean to the Jordan Valley. Two subsidiary basins from north to south respectively, are Ta'anach and Kesulot

that are part of the Yizre'el Valley. From the south it is topographically and structurally bordered by Mt. Carmel, Ramot Menashe, Umm El-Fahm and Mt. Gilboa. These folds trend to the north-northeast unlike Mt. Carmel which strikes to west-northwest (Fig. 10). The Lower Galilee basins truncated and sheared this fold belt during the Cenozoic as a continuation of the Late Cretaceous Syrian Arc compressional regime. The current geomorphology, therefore, is a product of continuous tectonic subsidence since the Neogene and is still active. Most of the subsidence predates the Pliocene period.

The palaeogeography of the Galilee region during the Mesozoic was largely influenced by a major Late Cretaceous folding event. The Cretaceous relief was submerged and Eocene sediments accumulations concealed the relief. Oligocene regional uplift and erosion left pockets of sediment in the deepest basins. This peneplain surface serves as a datum for later Neogene tectonics (Wald, 2015).

A well-established floodplain formed by the Kishon River's Middle and Lower Reaches have developed immediately north of Mt. Carmel. Due to the structurally-induced elevation of Mt. Carmel, the Senonian calcareous rocks are well-exposed along its south-eastern boundaries and in the adjacent syncline. Volcanic bodies occur at various levels and localities within the Cenomanian to Senonian calcareous sequences. They are lenticular and their distal and thin continuations overlap in some cases.

At the end of the Pliocene-Early Pleistocene, uplift of the mountainous backbone of Israel occurred in response to deepening of the Dead Sea rift due to rapid sediment accumulations here and also on the continental shelf along the coast of Israel in response to sediment-loading from the Nile.

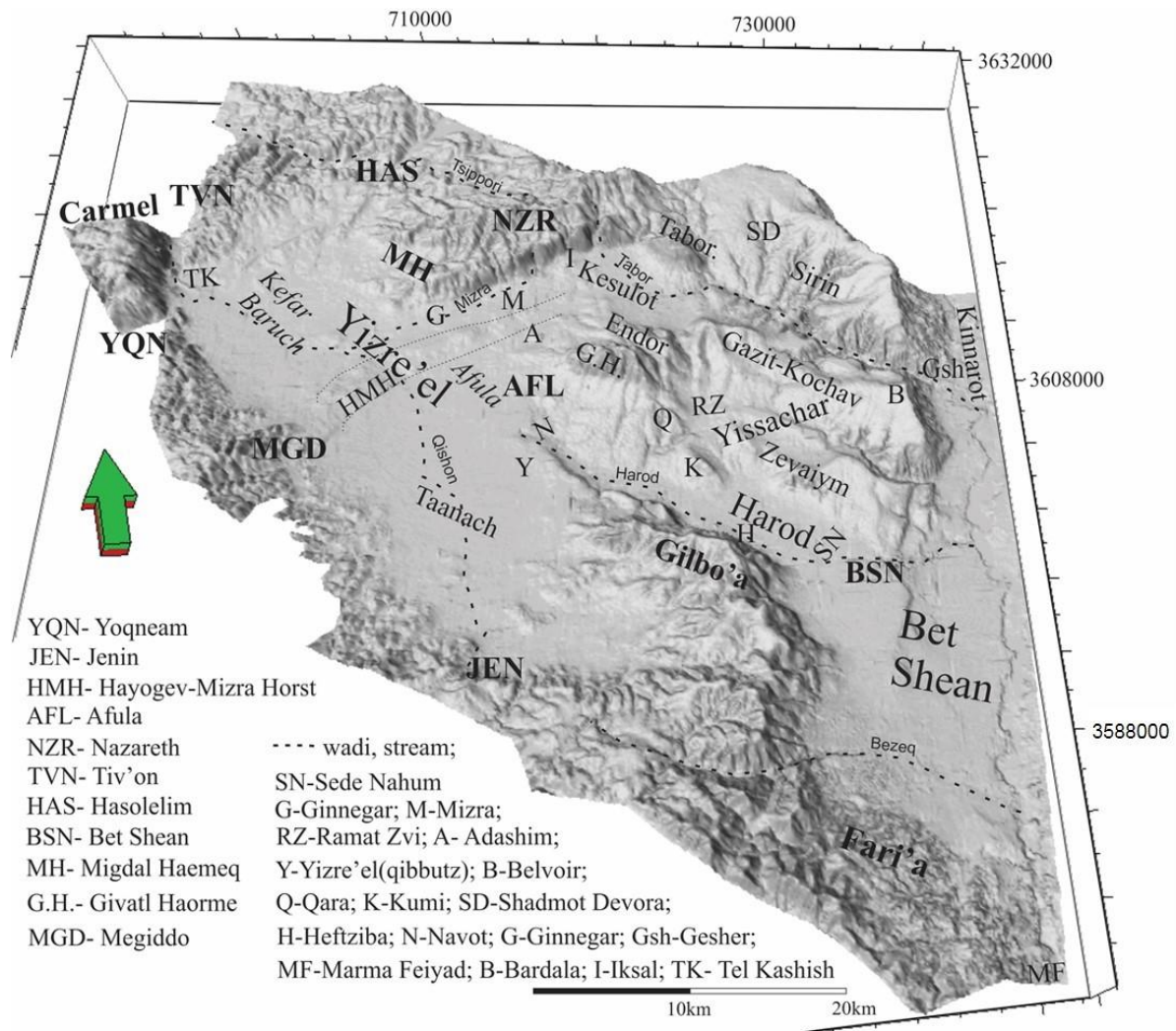


Figure 10: Structural basins in the lower Galilee region

Due to the uplift, and the displacement along the Dead Sea rift, that influenced the branching of the Gilboa-Carmel fault system, the region underwent faulting, tilting and uplifting, combined with volcanic activity in the drainage basin of the Kishon. The increasing uplift accelerated erosion of the western Galilee region and Carmel and therefore sediment supply into the deposition basin.

During the Pleistocene and Holocene cycles of transgressions and regressions prevailed on the Mediterranean east coast, including the Haifa Bay area (the marine extension of the terrestrial Kishon graben). These sea level fluctuations were partly caused by global changes in sea levels and partly due to local climate changes. At the last glacial maxima (LGM), global sea levels dropped by approximately 120m, and thus the coastline of the Mediterranean Sea in Haifa Bay area retreated a few dozen kilometres to the west. Gradual rise of the sea level after the LGM caused the migration of the shoreline to the east. At the beginning of the Holocene gradual rise of the sea level caused the Nilotic sand, previously trapped south of the Carmel headland by a barrier, to bypass this obstacle and be transported north into the Haifa Bay. On-going sea level rise caused the migration of the shoreline 2 - 3km east of the present coastline, and also 4km further east in the Kishon channel. This sea level rise, with the transgression of the coast to the east, deposited marine sediments in the Kishon River Estuary that partially blocked the water flow to cause large parts of the terrestrial area to be flooded

or become a swamp. Along with the sea level rise and after it stabilised, the Zevulun graben was filled with marine and coastal sediments that caused the shoreline to retreat again westward to its present location (Kafri and Ecker, 1964). The farthest inland (farthest transgression) marine sediment of late Miocene age is found at Tel Kashish, the border between the Proximal and Mid Reaches of the Kishon River.

8.2 Cretaceous to Cenozoic Rocks

The basement substrate within Shefa Yamim's permit areas are exposed in the elevated terrain represented by Mt. Carmel and the lower lying northern hilly terrain flanking the Zevulun and Yizreel valleys. This substrate comprises mainly carbonate rocks (dolomite, limestone, chalk and marl) intruded by volcanic rocks. The stratigraphic column indicates a continental shelf setting, the Levant margin, which rifted apart from the "Gondwana" super-continent during the Jurassic-Triassic and later was covered by the Tethys Ocean.

During the Cretaceous, marine carbonate deposits covered the shallow continental shelf. In the Carmel area, volcanic eruptions occur as several events within the carbonate column formation. These rocks spatially appear as patches across the Carmel structure and are correlatable within various geological rock units in terms of the age of their eruptions. These volcanic eruptions occurred on the continental shelf submerged under the shallow sea and were soon thereafter truncated by waves (marine abrasion) (Sass, 1980).

At the end of the Cretaceous during the incipient closure of the Tethys Ocean, a regional compression regime occurred in the entire region, from Sinai to Syria, creating the Syrian arc fold belt. Segev & Sass (2009) argue that at that time, a significant removal of approximately 250m of the Cretaceous rocks resulted from the above-mentioned folding and subsequent erosion.

During the Eocene, an extensive marine transgression deposited marine-sedimentary rocks of open sea environment on the Cretaceous stratigraphic column (Table 3).

The general stratigraphy of the Kishon Bay/Zevulun Valley area is described below based on previous publications and two recent 1:50,000 geological maps (Kafri and Ecker, 1964; Sagy and Gvirtzman, 2009 and Segev and Sass, 2014).

Table 3: Upper Cretaceous-Pleistocene Stratigraphy of the Zevulun Valley.

Group	Formation	Age	Description
Kurkar Group		Pliocene-Pleistocene	A maximum thickness of 240 m in Kishon graben. The Kurdani formation of Pliocene - late Pleistocene age forms its base. Characterized by calcareous sandstone ("kurkar").
Yafo Group		Pliocene	Mainly clay and marls, but also coarse clastic material. Its base is a regional unconformity. In Kishon graben it is tens of meters thick. Offshore it attains more than 1,000 m (Figure 4). The only outcrop of the formation in the terrestrial part of Kishon graben is in Nesher graben (discussed below).
Saqiye Group- Patch occurrences in the subsurface of the Kishon and Hilazon grabens; No outcrops. This group consists of the following formations:	Mavqi'im Fm.	Miocene	Evaporites and marl confined to the Kishon graben. Does not extend to the east. Eastern correlateable units include the Bira Fm. (Lower Galilee basins) and Sedom Fm. (along the Dead Sea Fault valleys till the Dead Sea basin).
	Beit Guvrin Fm	Late Eocene - Pliocene	Marls and chalks.
Avedat Group		Eocene	Buried approx. 885m the western side of the Kishon graben and crops out only along the eastern Zevulun Valley margins.
Mt. Scopus Group		Maastrichtian-Paleocene	Outcrops at the foothills of Tivon and hills and locally near the surface across the Zevulun Valley. It covers large areas both on the surface and especially in the subsurface. Its top is truncated (upper part Taqiye Fm. missing).
Judea Group		Upper Cretaceous (Albian-Turonian)	Deposited in the subsurface of Kishon graben where in few certain places they are truncated at their top. The Judea group occurs as tilted blocks to the south and is exposed along the Carmel fault along the Ha'amakim Junction- Haifa segment.

The Kishon River valley, the focus of Shefa Yamim's exploration campaign, is located on a series of NW-SE structural basins cross-cutting the central highlands of Israel (Fig. 10), where it drains the Yizre'el (Proximal Reach) and Zevulun (Distal Reach) valleys and the intermediate Mid Reach corridor. It is topographically and structurally bordered by folds, related to the compressional regime of the Late Cretaceous Syrian Arc. During the Eocene, an extensive marine transgression deposited marine sediments of an open sea environment on the Cretaceous stratigraphic column and moderated the folded landscape by filling the synclines (Figs. 11a & b). In the Oligocene, the global regression caused a withdrawal of the sea to the west and exposed the region rocks creating an extensive drift from east to west (prior to formation of the Dead Sea rift) that drained the entire Galilee region and Transjordan to the west – to the Levant basin (Mediterranean Sea of today). The current geomorphology is a product of tectonic subsidence, commencing in early Miocene, peaking before the Pliocene and is still continuing today. Since the Oligocene regional Arabian uplift, the area was exposed and denudated, hence most of the rock record is continental or fluvial (Fig. 11b). The palaeo-catchment was probably much larger in Oligocene times. Firstly, the relief was minor (peneplain) and secondly, an Oligo-Miocene thick (1,000 - 1,500m) section is documented offshore of Israel and Lebanon in the Levant basin (Wald, 2015).

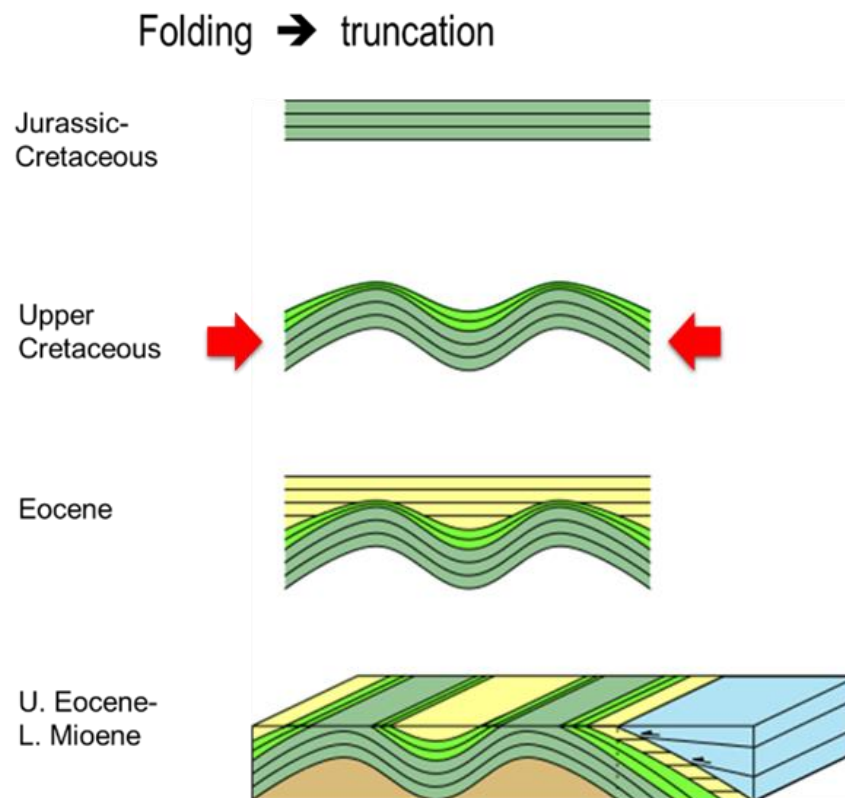


Figure 11a: Palaeogeography of the Galilee (northern Israel) in the Mesozoic included major folding event in Late Cretaceous. The Cretaceous relief was submerged and Eocene sediments accumulated to seal up the relief. Oligocene regional uplift and truncation left merely scarce sediments in deepest basins. This peneplain surface is a datum for later Neogene tectonics (Wald, 2015).

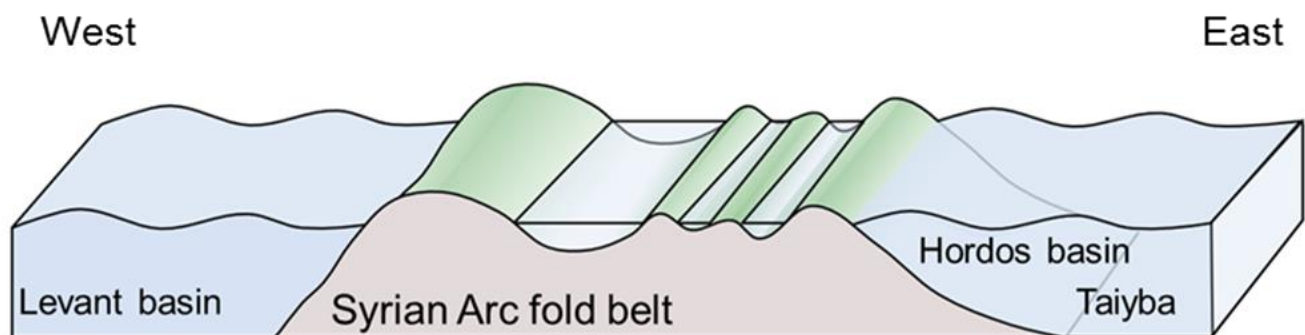


Figure 11b: The Cretaceous mild fold belt relief, outlined as an elongated ridge, was partly exposed above the Oligocene sea. The ridge separated the Hordos/Taiyba and Levant basins (Wald *et al.*, 2014).

During the Miocene, northwest-trending normal faulting caused basin subsidence and sub-catchments evolved. Mainly basalts of the Lower Basalt Formation (Schulman, 1962) and some local tuffs as products of a prolonged volcanic activity filled the valleys. The magma intruded along large fault systems as dykes and volcanoes (Schulman, 1962; Shaliv, 1991). The dykes are mainly cutting through chalks of the Avedat Group and some cut through older Cretaceous groups in particular at Mt. Scopus and Judea. Large magmatic bodies were documented, the largest in Giv'at Hamore peak (0.5km²) (Dicker, 1969; Oppenheim, 1962). Various volcanoes both along the valleys' margins and within them were identified mainly through pyroclasts occurring around them. Basalt composition is predominantly olivine-alkaline (Oppenheim, 1962). Most of these bodies are aligned to the northwest along with the structural features – faults and fractures.

Continental environmental conditions prevailed as the area was exposed during the Oligocene, and sedimentation was dominated by terrestrial conglomerates, syn-tectonically embedded within the valleys. A clay series comprising fluvial clay accumulations overlay this conglomerate unit. The conglomerates comprise pebbles of older carbonate rock units as well as basalts. The clay series consists of brown smectite clay and marly brown-red clay, interbedded with minor accumulations of calcite, pebbles of chert and limestone.

According to marine coastal fossils, the palaeo-coastline migrated from Mid-Miocene to Pliocene between the Zevulun and Yizre'el valleys to between Tel Kashish and Kefar Hassidim. The Kishon drainage system was established during the Pliocene and drained the areas underlain by rocks of Mt. Carmel, including volcanic complexes basalts of the Lower Galilee.

Neogene Volcanism

The extensive volcanic rock outcrop in the Lower Galilee region is divided into two main volcanic episodes across northern Israel. The earlier episode (Lower Basalt Formation) is assigned to Mid-Late Miocene and was characterised by extension and faulting across the entire region. This extensional stress regime included northwest-southeast trending faults and grabens, enabling mantle-derived molten rocks to reach the surface. Volcanism was focused in the valley margins adjacent to normal faults. The younger volcanic period (Cover Basalt Formation) during the Pliocene is characterised by further faulting in the valleys. Vast volcanism prevailed across Saudi Arabia, Jordan, Syria and northern Israel. Large areas of the central and eastern Galilee region as well as the Golan Heights were covered by basalt flows.

Basalt Volume Estimation

Shefa Yamim analysed the provenance and contribution of the Proximal Reach Lower Basalt Formation and its derivative syntectonic conglomerates according to the system followed by Wald (2015) and Shefa Yamim's exploration to date (Wald and Toledo, 2016). These substrate units were, and are still being, drained into the Kishon River valley and deposited as part of the Mid-Reach multi-commodity placer that is dominated by gemstone varieties of corundum. The high volume of the Lower Basalt Formation serves as a record of the syntectonic subsidence of Miocene extensional basins as well as the short period and spatial extent of the volcanism. The Lower Basalt Formation was emplaced mainly via normal fault planes and its thickness exceeds 600m in at least two locations.

The Kishon River drainage basin covers some 1,122km² in which a calculated Lower Basalt Formation volume of 130km³ occur (Wald and Toledo, 2016). The weathered derivatives from these Miocene basalts, notably clays (non-placer minerals) and corundum varieties (potentially placer-forming minerals) have drained into and through the narrow, structurally-confined Mid-Reach of the Kishon

valley where additional trapping from oversize clasts, derived from Mt. Carmel alluvial fans, have promoted placer development (Toledo *et al.*, 2015).

Mt. Carmel Stratigraphy

The Shefa Yamim's exploration and prospecting areas are predominantly underlain by limestones and dolomites of the Albian-Turonian Judea Group. The stratigraphy of Mt. Carmel is complex as a result of the facies changes over short distances and the variety of volcanic rocks intruding the sedimentary units. The currently accepted litho-stratigraphic nomenclature of units in the Mt. Carmel area uses the radiometrically datable volcanic intrusions as time markers. These time markers serve as a correlation tool for the Albian-Turonian lithological sequence.

Four sedimentary-volcanic cycles were identified by Segev and Sass (2009):

- ❖ Cycle I: The first sedimentological cycle is represented by the Yagur and Talme-Yafe formations (Albian age). The Yagur formation represents an inner reef, in a well-stratified environment, which led to the accumulation of thick layers of dolomite rocks, while the Talme-Yafe formation consists of chalk layers (with chert lenses), which were deposited west of a reef barrier in an open water environment. An erosional unconformity terminates this first sedimentary phase.
- ❖ Cycle II: The second cycle shows the subsidence of the carbonate platform, with the onset of the first volcanic phase V1, which is found locally on top of the Yagur Formation at Kerem-Maharal, Alon Valley and Rakefet River areas. The V1 phase tuffs (called the Maharal tuffs) were dated as 99.0Ma old and correlate with the Isfye Formation (Albian age). The lower part of the Isfye Formation is called the Bet Oren limestone, followed by chalk with chert laterally changing to dolomite. According to an erosion surface, water depth is estimated at approximately 60m. This erosion surface was subsequently covered by the Isfye Formation.
- ❖ Cycle III: The third cycle began with a second volcanic phase (V2), which is found locally in the Fureidis, Mukhraka and Haifa areas. The V2 phase tuffs (Tavassim tuff) are dated as 98.2Ma old and correlate with the time-equivalent Arkan and Zikhron carbonate formations. The Arkan Formation chalks (local chert nodules) and limestone, are found mainly in the northern parts of Mt. Carmel, representing an open-sea environment while on southern Carmel the Zikhron Formation rocks, which are more dolomitic, representing rather a closed basin environment, were formed. An inner-cycle third volcanic phase (V3), which occurs as a basalt horizon, is found locally in Mukhraka, Rakefet and Ofer areas (Rakefet basalt). It is 96.7Ma in age and it is interbedded in the layers of the Zikhron Formation.
- ❖ Cycle IV: The fourth cycle began with the onset of the fourth volcanic phase (V4), which is found locally in the Shefeya, Makura and Ofer areas. The V4 rocks (Shefeya pyroclastic horizon) are composed of tuffs and basalts which are 95.4Ma in age and their formation

took place during the deposition of the time-equivalent Bina and Sakhnin Formations. The Bina Formation is composed mainly of limestone and the Sakhnin Formation is composed mainly of dolomite. The two formations occur with rather sharp lateral changes and represent environmental changes that took place during their deposition due to the development of reef barriers, which separated between open-sea and back-reef environments.

- ❖ A fifth volcanic phase (V5) took place 13.4Ma later and appears in one location only – near Bat-Shelomo. It is represented as pyroclastic rocks (named Bat-Shelomo tuffs), which occurred intercalated with the Ein-Zeitim Formation (Senonian age) and radiometrically dated at 82Ma. The stratigraphic sequence of the Carmel rocks is presented in Figure 12.

Most of the volcanic rocks in Mt. Carmel are pyroclastics of basic composition, with subordinate lava occurrences interbedded with carbonates of Mt Carmel (Fig. 13).

Pyroclastics:

The constituents of the pyroclastics are:

- Juvenile ejecta that are represented by ash, made up of micro-vesicular glass in various degrees of preservation.
- Other juvenile components are lapilli and volcanic bombs. These ejecta are rich in micro-vesicles and consist of black glass (sideromelane), altered olivine phenocrysts, and microlites of augite and plagioclase.


















			NORTH	SOUTH	Southwest	Segev and Sass (2009) Atlit sheet	Lithology symbols Abbreviations (Atlit sheet)	
			Karcz (1959)	Kashai (1966)	Bein (1974) Sass et al (1977)			
Senonian	Campanian				V4 	V5 	Volcanic abb.	
	Santonian			SENONIAN - PLAEOCENE	5	En Zetim		Kuez
	Coniacian							
Cenomanian	Middle	4	Ein Haud Limestone Ein Haud Chalk Muhra	Qumbeze Umm E-Zinat Muhra	  Shune	4	Sumaq Mbr. Bina (undivided) Muhra Mbr.	Kubs Kub Kubm
					V3 		Kuvs	
	Early	3	Shamir  Khureibe	Junediya Khureibe	 	3	Arqan Zikhron V3 	Kuar Kuzi
					V2 		Kub	
Albian		2	Gryphea "Meleke" Isfye 	Gryphea bed Isfye	 V1 	2	Isfye Isfye (d) V2  V1 	Kui Kui
		1	Yagur	Yagur	1	Talme Yafe Yagur	Ku1m	Klya

Figure 12: Lithostratigraphy of Mt. Carmel modified from Segev and Sass (2009). V1 - V5 volcanic phases are noted.

Accessory lapilli and blocks are similar in composition and vascularity to the juvenile fragments, but have higher crystallinity. Based on the acid composition of the plagioclase (albite-oligoclase in most cases, and only rarely andesine), these ejecta are recognised as spilites. Rocks of similar microscopic appearance are known among the few lava occurrences in Mt. Carmel.

Xenoliths of limestone and dolomite are rocks known from the strata which immediately underlie the respective pyroclastic bodies and represent, therefore, the explosion products at the vent. These fragments are surrounded by a rind of friable, structureless carbonate. This rind seems to be the original decarbonised zone in contact with the hot magma, which was later re-carbonated. The smaller carbonate fragments were almost entirely affected by this process. Mafic xenoliths consist of various gabbroic rocks. Here olivine gabbro, meta-andesine-olivine gabbro and melo-andesine-olivine-hypersthene gabbro are most prevalent. Ultramafic xenoliths are also present.



Figure 13: Mt. Carmel volcanic rock outcrop (foreground) overlain by calcareous rocks (background).

Three main pyroclastic facies associations are present. The distance from the eruption centre can be estimated by the degree of the pyroclastics' alteration and their colours – black or dark grey represent the more massive (and therefore less altered) rock, which was formed closer to the vent while yellowish to light brown tuffs represent a more distant location from the centre of the eruption, sometimes represented as clay which has pyroclasts that are completely altered. The pyroclastic facies association description is restricted to typical cases only due to poor exposure on Mt. Carmel.

- ❖ *Black Pyroclastic Association.* The least altered of all the pyroclastic rocks. These consist of vesicular and micro-vesicular, almost fresh sideromelane, with few microlites of plagioclase and fine-grained ore minerals. The black pyroclastics are massive in appearance and they virtually lack any bedding structure. Their ejecta are large (up to 1.5m). The black pyroclastics are the least common among the pyroclastic associations and their lateral extension is limited to a few hundred meters.
- ❖ *Variegated Pyroclastic Associations.* This association contains the most diversified pyroclastic types. Typical occurrences are well-bedded and are grey, brown, yellow, red, and green. Some however, are more monotonously greyish or reddish. The rocks consist of tuffs, lapilli tuffs and agglomerates, and contain volcanic bombs and various other ejecta that are up to a few dozen centimetres across. The coarser lapilli tuffs and agglomerates are usually grey, whereas the finer tuffs acquire reddish and greenish colours. Thus, a relationship between grain size and degree of alteration is indicated. The variegated pyroclastics extend over distances of up to 2 - 3km.

- ❖ *Yellow Pyroclastic Associations.* The yellow pyroclastics consist mostly of very well thinly-bedded, yellow to brownish fine-grained tuff. Secondary calcite and admixture with original carbonate sediment are quite common and, where abundant, are responsible for a dirty white appearance. The yellow tuffs associated with a particular volcano have the largest extension when compared with the other pyroclastic associations and can be followed over a distance of up to 6km.
- ❖ *Lavas.* Lava flows occur in only a few localities in southern Mt. Carmel. They are apparently all of the same age, even though different sources of eruption were involved. The lava flows occur as dense and vesicular varieties, which are closely associated in some localities. The preservation of the lavas is in most cases very poor.

A well-preserved record of these volcanic eruptions is found in the greater Mt. Carmel area where fourteen volcanic bodies occur within Shefa Yamim's permit areas. The most exciting discovery to date is the mineral assemblages of the volcanic rocks. Shefa Yamim has demonstrated that some of the fourteen volcanic bodies have mineral assemblages that are compatible with kimberlitic sources (Apter *et al.*, 2014; Apter, 2014). Diamonds have been recovered from the magmatic rocks and its erosional deposits in the Kishon River valley. In addition, gemstone variety corundum such as sapphires and rubies, as well as natural moissanite, have been recovered from these volcanic bodies.

Apter (2014) concurred with Mittlefehldt (1986) that the Mesozoic mafic and ultra-mafic bodies on Mt. Carmel had sampled xenoliths/xenocrysts in the upper mantle and lower crust between depths of 60 – 110km. In a recent study however, Kaminchik (2014) obtained results from a limited suite of xenoliths that pointed to even shallower depths of around 45km. Referring to the Carmel Sapphire, Griffin *et al.* (2016) suggest that the peritectic reaction corundum + melt → anorthite, points at conditions of crystallisation constrained between ca 30-100km (within the lithospheric mantle) and 1450 - 1550 °C.

8.2.1 Rakefet-Muhraka-Kishon Drainage System

The Shefa Yamim exploration activities progressed in two directions:

1. Study of the placer deposition in the Kishon region, i.e. secondary deposits, and
 2. Location of the primary source of the diamonds, natural moissanite and other precious stones.
- This exploration is aimed at defining commercially exploitable precious stone resources.

In parallel, efforts were made by Shefa Yamim in the Migdal Ha-Emeq area to determine the source of the KIM's and the natural moissanite and corundum discoveries, possibly related to the Miocene to Pliocene formations in the Yizre'el Valley.

The magmatic bodies of Mt. Carmel have been mapped on a regional scale in the past by the British Geological Survey and the Geological Survey of Israel (Sass, 1980; Segev and Sass, 2009), but have not previously been mapped in detail as individual bodies. To conduct a detailed mapping programme, Shefa Yamim verified the nature and continuity of these magmatic bodies on Mt. Carmel.

It should be noted that only the intrusions that are drained by the eastward flowing streams have supplied sediment to the Kishon River Valley, but this does not preclude intrusions on the western slope of Mt. Carmel that would be containing DMCH as well. The RMC and Muhraka volcanic bodies hold significance as major sediment contributors (Fig. 15) whereas Shefa Yamim still verifies if other complexes also contributed. The elevated block of the Muhraka horst, together with the neighbouring RMC, drain to the east and northeast respectively. Therefore, demonstrating the relationship of the tributaries to the Kishon River is important.

8.3 Kishon Valley-fill Geology

The general stratigraphy of the Kishon catchment is described below, following the nomenclature used by previous researchers and two recently published 1:50,000 geological maps (Kafri and Ecker, 1964; Sagy and Gvirtzman, 2009; Segev and Sass, 2009; Segev and Sass, 2014). The Kishon Valley has been divided into three parts, namely the Distal, Mid and Proximal Reaches, based on morphological and stratigraphic differences (Fig. 6).

The Proximal Reach represents the drainage basin up-valley from the volcanic bodies of Mt. Carmel, where degradational rather than aggradational processes prevail. However, it plays a role in supplying heavy and gem minerals into the Kishon Mid Reach. Special attention is given to basalt deposits in the Yizre'el basin, the weathering products of which have been transported through, or deposited in, the Kishon Mid Reach.

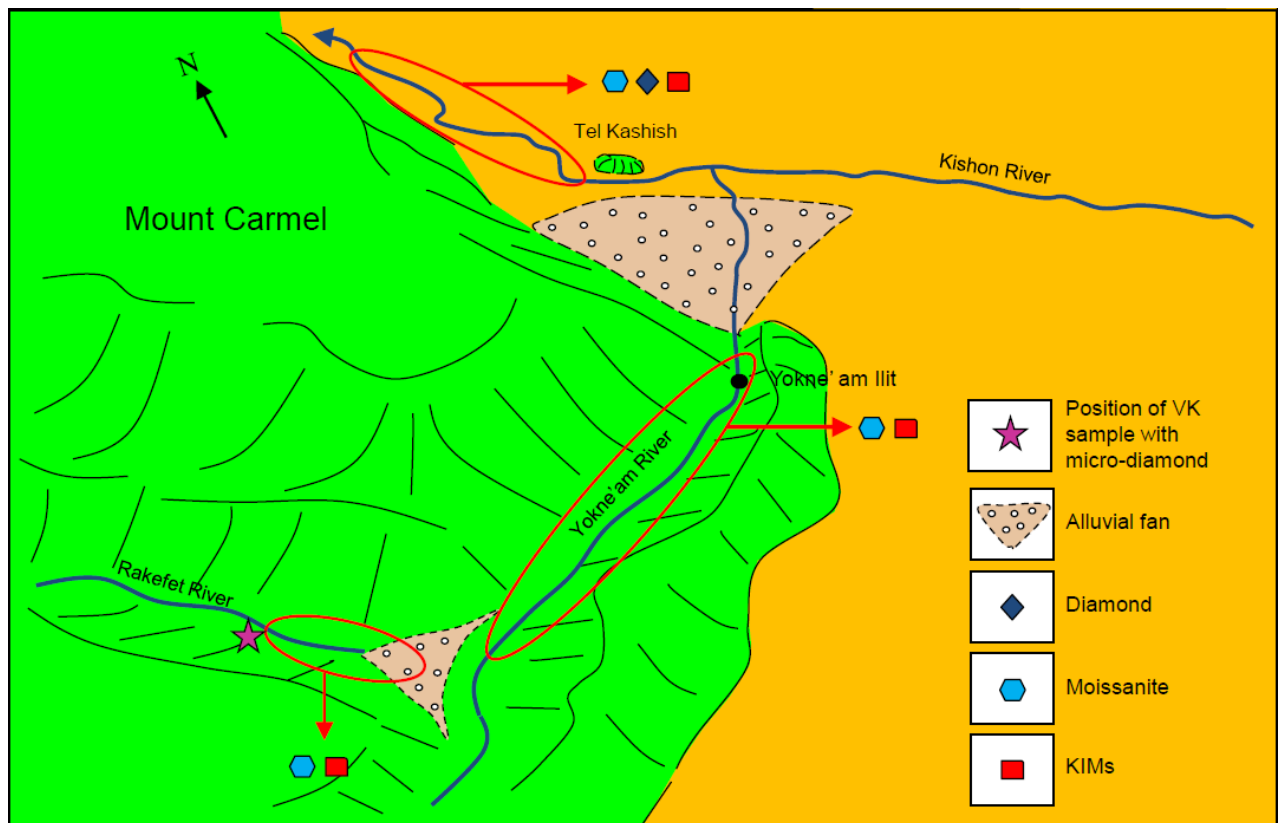


Figure 14: Simplified diagram showing mineral distribution in alluvial deposits of the RMC-Yoqneam-Kishon drainage system (Toledo *et al.*, 2010).

These weathering and erosional products are predominantly clays (overburden, barren of placer potential) and the resistant corundum (ruby, sapphire and Carmel Sapphire) that, to date, make up the principal components in the Kishon Mid Reach Placer (Bluck *et al.*, 2005; Griffin *et al.*, 2016; Wald and Toledo, 2016). As a total estimated volume of some 300,000km³ basalt is present in the lower Galilee region, the supply and transportation of basalt weathering products becomes important. Recent discoveries of titanium-rich corundum called Carmel Sapphire appear to be unique to the Mt. Carmel and immediate surroundings. Along with its gem derivatives sapphire and ruby, point to potential supply mechanisms that will be addressed mainly by a better understanding of the Kishon proximal catchment area (Fig. 14).

8.3.1 Mid Reach

The significance of the Mid Reach lies in the fact that it is just down valley from the Rakefet Magmatic Complex (RMC) and the effect that this constricted valley morphology in this part of the valley (Figure 3) has on placer development. Other volcanic bodies on the eastern margins of Mt. Carmel (Muhraka and perhaps Har Alon & Beit Oren) may also contributed to placer deposits in the Mid Reach via short, steep tributaries across the eastern slope of Mt. Carmel (Figure 1). This section of the valley is therefore considered to be highly prospective in terms of placer deposits.

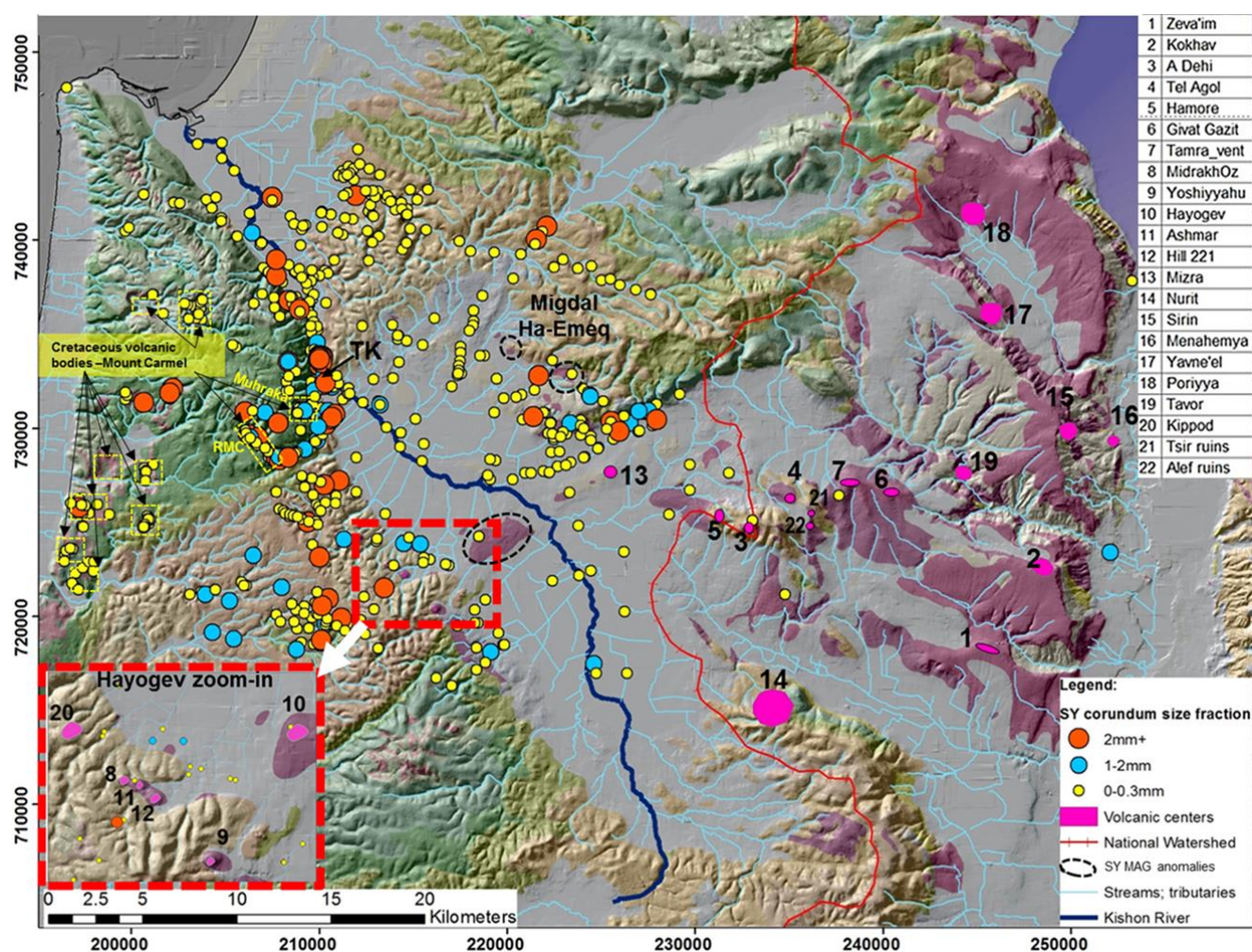


Figure 15: Inferred Neogene volcanic sources and corundum recovery locations and size fractions. Volcanic centres and assumed vents are shown in magenta polygons. Note the association between corundum recoveries (gem derivatives sapphire and ruby) and proximal volcanic sources, as well as point sources from Mesozoic volcanic bodies on Mt. Carmel.

A typical profile of the valley-fill sediments in this section of the river is shown in Figures 16 & 17.

The Mid Reach valley-fill assemblages represent two main lithological units:

- ❖ A sandy-clay overburden.
- ❖ These Pleistocene to Recent sediments are predominantly dark-brown coloured and represented by clay, silt, calcareous sandstone, and occasional suspended gravel distributed along the recent river flood plain and tributary channels. Silty sand and gravel may contain subordinate angular dark basalt clasts. Total unit thickness varies from 3 – 6m on average. A gravel layer consisting mainly of reddish-brown coarse sand and silty clay matrix. There is a clear unconformity at the base of the unit. Pebbles and cobbles, with an average size of a few centimetres (maximum 20 - 80cm), consist of mainly locally derived carbonate (20 – 65%), mixed with white quartz and black and brownish flint (3 – 10%) and minor grey marls (0 – 15%). Sub-rounded dark-coloured basic rock pebbles are always present (1 – 10%). The alkaline basic rock pebbles range from a few mm up to 20cm in size. These are composed of basanite, olivine basalt, melilite, tephrite, and basanitic nephelinite as well as Miocene gravel. Total unit thickness varies from 3 - 6m.

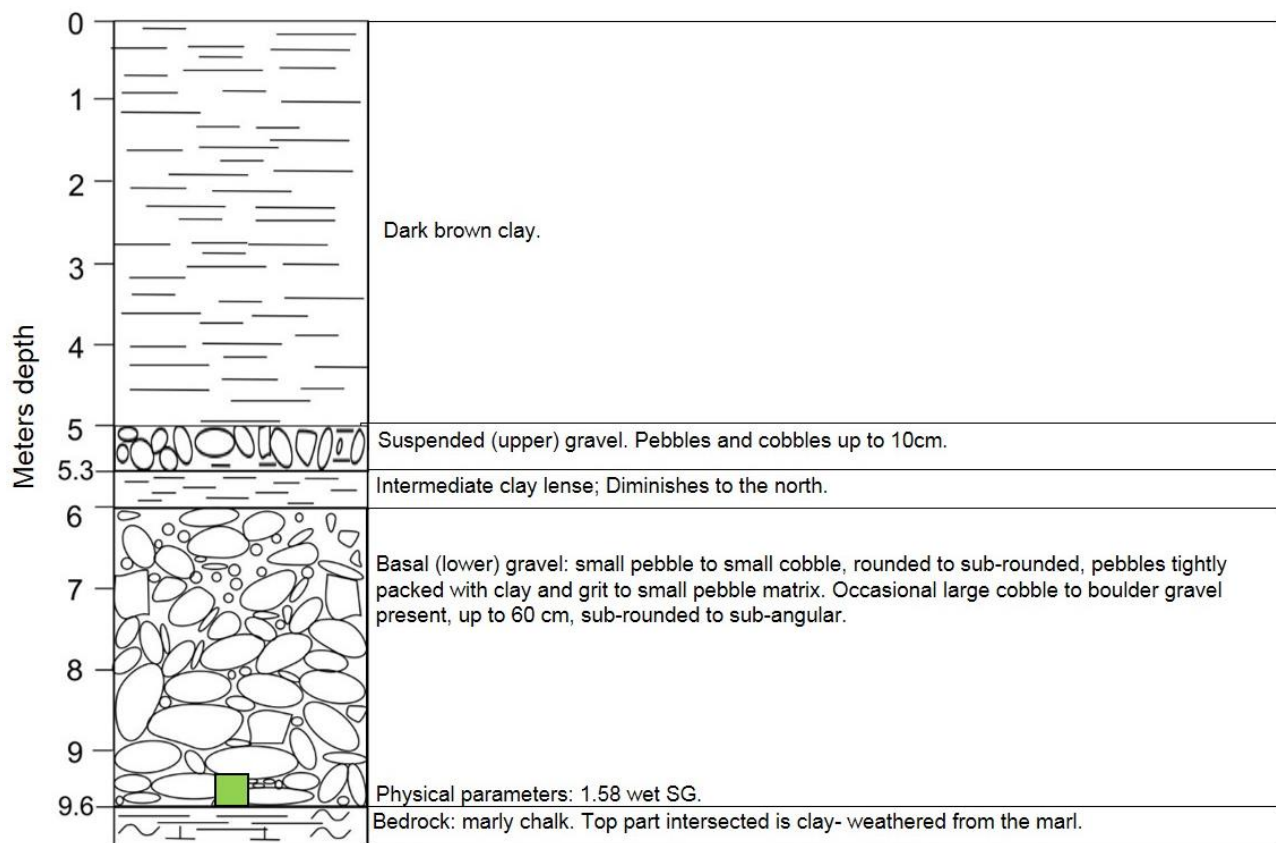


Figure 16: Typical profile of the Kishon River valley-fill in the Mid Reach.

Headwater streams of the Kishon River eroded minerals from the volcanic bodies from the Galilean valleys and Yizre'el valley margins and the Zippori main tributary draining the Nazareth range, as well as shorter reaches from Mt. Carmel. These also acted as conduits for sediments being transported down to the Kishon River floodplain. It is therefore to be expected that the gravels of the Kishon River would contain diamonds, moissanite, sapphire and ruby varieties of corundum and the Hibonite (DMCH minerals). The Kishon River and its tributaries continuously evolved since the Pliocene, consistently adjusting to tectonic, sea-level and climatic changes to deliver and accommodate large volumes of eroded sediment in the Kishon River valley (Fig. 18).



Figure 17: Photo mosaic of a bulk sample excavation showing the Kishon valley-fill sediments.

DMCH minerals would have been fed into the Kishon River and trapped in energy-specific areas in favourable channel-morphological settings in the river to allow the concentration of DMCH minerals in favourable sites to form placer deposits. These alluvial deposits, made up entirely of unconsolidated gravel, sand and clay with DMCH minerals hosted in the gravel fraction, represent the Kishon River valley placer target.

From its headwaters to the Mediterranean Sea, only certain parts of the Kishon River system contain an abundance of DMCH minerals. Shefa Yamim's source (volcanic rocks) to sink (Mediterranean Sea) model thus guides exploration to target high-interest areas first, thereby reducing time and maximising potential.

The model shows that the middle reach of the Kishon valley, referred to as the Mid Reach, is of particular interest. It has greater potential due to geological features that are highly favourable for trapping heavy minerals including precious stones. The Mid Reach is undergoing rigorous exploration that is in an advanced stage to determine its exploitable potential (Toledo *et al.*, 2015; Toledo *et al.*, 2016).

8.3.2 Distal Reach

The Kishon Graben is a structurally-controlled basin that extends offshore into the Haifa Bay, its submerged western marine portion. The graben is bordered by the Carmel fault along its

southern edge at the northern flank of Mt. Carmel and the Ramat Yohanan fault to the north (Figure 21). The Distal Reach of the Kishon River and its valley-fill sediments are the main occupant of the Kishon Graben. The Kishon River's Distal Reach valley-fill sediments comprise Neogene and Quaternary fluvial and marine assemblages, which represent four main lithological units:

- ❖ Light, sandy limestone, chalk, reddish coloured clay and calcareous sandstone, and gravel. Well-rounded gravel consists of pre-Cretaceous clasts mixed with minor amounts (1 – 2%) of dark alkali-basalt and basaltic nephelinite typical of mantle-derived volcanic rocks. The gravel is mainly cemented with a reddish-brown sandy, clay matrix. Maximum observed thickness of the unit is 174m.
- ❖ Grey-coloured marl, clay, gypsum, and marble succession. It unconformably overlies the limestone of the underlying unit and is found in most boreholes. The succession represents lagoon sediments deposited in relatively high, water salinity environment. This unit has a Pliocene age and a total unit thickness that varies from 35 - 120m.
- ❖ A gravel layer consisting of mainly reddish-brown coarse sand and a silty clay matrix. There is a clear unconformity at the base of the unit. This unit forms a continuous horizon over a distance of about 2.5km and splits into several horizons to the northwest, reaching a 7 - 8km length in total. Pebbles and cobbles with an average size of a few centimetres (maximum 20 - 50cm) consist mainly of locally-derived carbonate (20 – 65%), mixed with white quartz and black and brownish flint (3 – 10%) and minor grey marls (0 – 15%). Sub-rounded dark-coloured basic rock pebbles are always present (1 – 10%). The alkaline basic rock pebbles range from a few mm up to 20cm in size. These are composed of basalt, olivine basalt, melilite, tephrite, and basaltic nephelinite. Total unit thickness varies from 18 - 92m.
- ❖ The Pleistocene to Recent sediments are predominantly red-coloured and represented by clay, silt, calcareous sandstone, and rare gravel distributed along the recent river and tributary channels. Silty sand and gravel contain minor amount of angular dark basalt clasts. The alluvial and aeolian continental sediments are replaced by dune sand, and meters-thick ephemeral marine lagoon sediments toward the northwest. Total unit thickness varies from 17 - 155m, 60 – 65m on average.

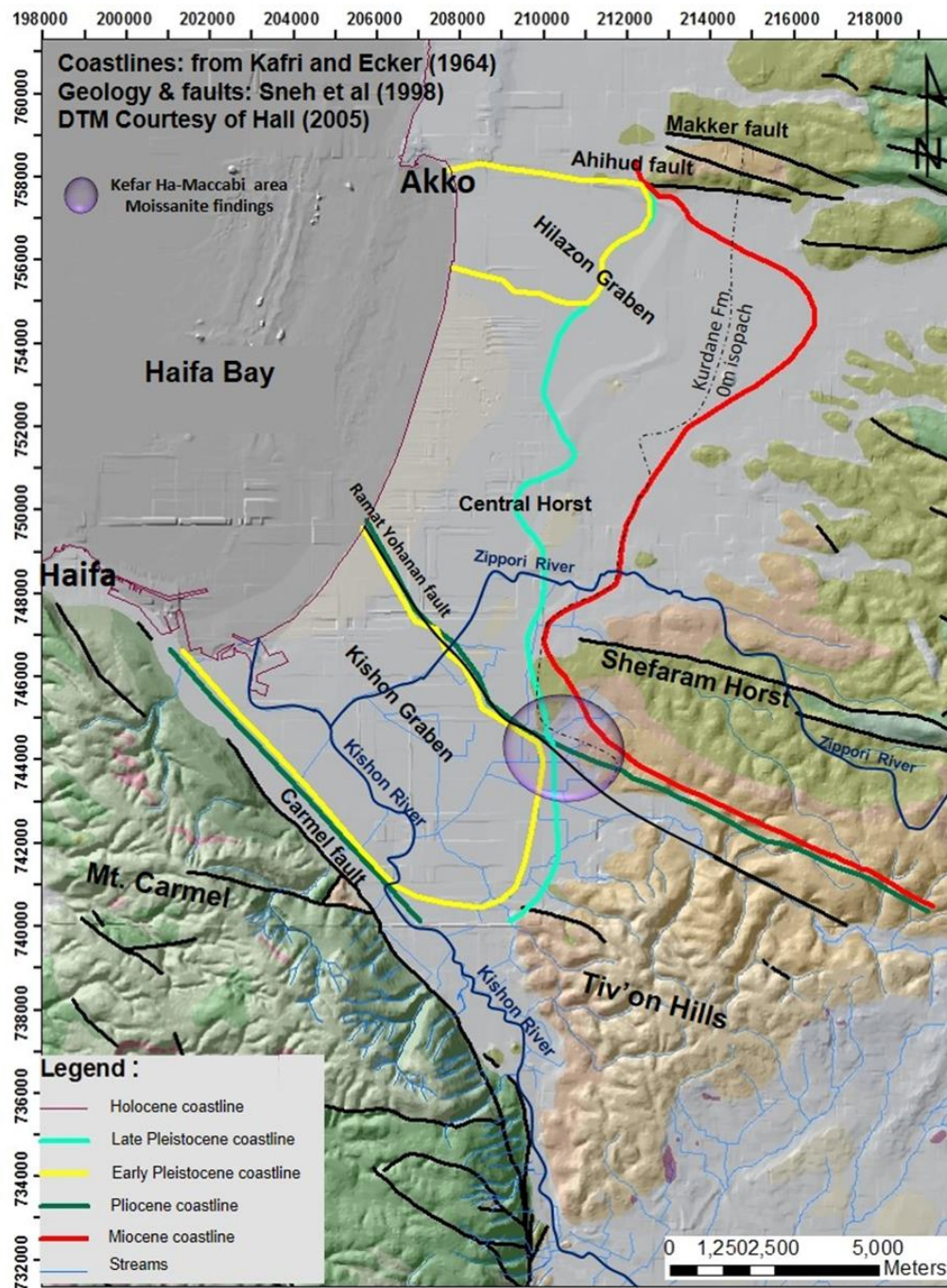


Figure 18: Reconstruction of paleo-shorelines according to Kafri and Ecker, 1964. Note the purple-shaded circle crossed by consecutive paleo-coastlines. This location is also connected to the Ramat Yohanan normal fault.

8.4 Mineralisation

The **Rakefet Magmatic Complex (RMC)** is considered to be one of the primary sources of DMCH and related heavy minerals. Not only is this the area where a diamond was recovered *in situ* (Burger, 2004), but also the fact that stream sediment analyses showed this area to be a key source area for the mineralisation in the Mid Reach of the Kishon River.

Until recently Israel and its immediate vicinity has not been considered a prospective target for precious mineral exploration given its perceived unfavourable geological setting including an absent craton. Yet Shefa Yamim has recovered a micro-diamond from an *in-situ* rock sample from the Rakefet

volcanic body, and diamonds in down valley sediments in the Kishon River floodplain. High concentrations of sapphire, rubies and moissanite were also recovered with a host of other heavy minerals from the gravels in streams draining from Mt. Carmel to the Kishon River and in the Kishon River floodplain itself.

The mineral assemblages from the volcanic bodies that can be associated with kimberlite have been termed KIMs and are mainly represented by garnet, ilmenite, chromite and clinopyroxene. In addition, Shefa Yamim identified a multi-commodity assemblage called the TMA comprising two mineral suites: the HIM (Heavy Industrial Mineral Suite - garnet, rutile, ilmenite, and zircon) and DMCH (Diamond, Moissanite, Corundum - sapphire, ruby, Carmel Sapphire and hibonite) suites. The presence of the diamonds found in the permit area can be fully appreciated by accepting their association with the KIMs, and other highpressure minerals including corundum and hibonite.

The mineral chemistry of the garnets exhibits some very unique attributes with one population of garnet (peridotitic) that has low chrome values (<2wt%) suggesting that these minerals have come from shallow depths (about 60km) and are not associated with the diamond stability field, a region at greater depth where diamonds form (Apter *et al.*, 2014). However, the second garnet population (eclogitic), which is also inherently low in chrome (<2wt%) has sodium oxide values of >0.07wt%, pointing to much deeper regions with pressures approximating those in the diamond stability field (Apter *et al.*, 2015). It has been demonstrated that diamonds are also derived from eclogite source rocks, thus in exploration applications, eclogite garnets with sodium oxide values >0.07wt% are considered significant in that they are associated with diamonds (Gurney *et al.*, 1993). This would explain the recovery of a micro-diamond in an *in-situ* sample taken from one of the volcanic bodies (Apter and Burgers, 2004). The geochemical make-up of this rock sample corresponds to West African kimberlites and also indicates the presence of eclogite garnets with sodium oxide values >0.07wt%. A micro-diamond from the volcanic rock provide sufficient evidence to suggest that some of the Mt. Carmel volcanic bodies are kimberlitic in nature and are likely to be diamond-bearing even though low-chrome peridotite garnets are present. Exploration results continue to demonstrate that the volcanic bodies within Shefa Yamim's permit areas are the source of these minerals. Erosion of these bodies over prolonged periods would have released TMA minerals into a drainage network where they would accumulate as placer deposits with the Kishon Valley as depositional basin with a large accommodation potential for placer deposits.

At this stage sampling data indicates that appreciable quantities of diamonds are not present in the deposits investigated, however, *a multi-commodity deposit of abundant gem quality corundum* (including sapphire, ruby and Carmel Sapphire), moissanite and rare diamonds (DMCH) constitutes the mineral assemblage of interest representing exceptional high-quality gems. These minerals have come from much deeper levels from the mantle than previously thought. It is the gem-quality corundum and moissanite that are of particular significance to Shefa Yamim and form a possible target of economic interest.

It should be noted that natural moissanite is exceptionally rare and is only found in a few placers worldwide, usually as tiny crystals, less than 1.5mm (Fritsch *et al.*, 2014). Yet, Shefa Yamim has recovered over 3,000 crystals since the inception of their exploration programme including the two largest to date – world records – measured 4.1mm (GIA, 2015) and 4.14mm (Toledo *et al.*, 2016).

In addition to moissanite, gem corundum (ruby and sapphire) and Carmel Sapphire are also found. The Carmel Sapphire is a titanium-rich variety of corundum that appears to be unique to the Shefa Yamim permit areas. It takes a good polish and has unique qualities that distinguish it from typical sapphire. Sapphire occurs in abundance with about 4,000 crystals having been recovered to date; the largest weighing 5.72 carats. Most sapphires are dark blue, but brighter colours of pink to red or a violet-blue are not uncommon. Rubies are deep red and exhibits good clarity.

9. EXPLORATION AND DATA COLLECTION

9.1 Introduction

Shefa Yamim's exploration and prospecting programme commenced in 1999. The company adopted a systematic milestone based exploration strategy. In doing so, confidence in results are improved by constructing the programmes so that it supports a continuum of decisions based on results obtained, and risks and uncertainties are reduced as the exploration programmes advance.

Conventional exploration techniques are applied that include:

- Regional and detailed geological mapping in target areas identified by remote sensing.
- Ground geophysical surveys using gravity and magnetic techniques.
- Geochemical surveys using the Metal Mobile Ion (MMI) method.
- Petrographic, mineral chemistry and whole-rock geochemical analyses. These analyses are conducted at accredited laboratories and universities.
- Reconnaissance and small-scale sampling of alluvial deposits (stream deposits) and *in situ* volcanic rock.
- Small and large diameter (up to 1m) boreholes.
- Pit and bulk sampling.

9.2 Geological Mapping

9.2.1 Topographic Data

At present, the highest resolution topographic data available for the exploration area is the digital terrain model (DTM) of Hall (2008), at a resolution of 25mX by 25mY.

9.2.2 Government Regional Geological Mapping

A systematic GIS supported regional geological mapping in the area of the Shefa Yamim permit area was conducted by the Israel Geological Survey ("IGS"), (Sneh *et al.*, 1998). This included reconnaissance geological mapping of four 1:200,000 scale map sheets across the state of Israel. The Shefa Yamim permits areas are covered by Sheet 1. More recently 1:50,000 scale geological

map sheets of: Atlit (Segev and Sass, 2009), Umm El-Fahm (*Sass et al.*, 2013); Haifa (Karch and Sneh, 2011); Shefar'am (Sneh, 2013) were published. The Nazareth sheet is still in preparation.

9.2.3 Mt. Carmel Mapping

The volcanic bodies of Mt. Carmel have been mapped on a regional scale in the past by the British Geological Survey. Karcz (1959) produced the first detail geology map of Mt. Carmel. Sass (1980) described and differentiated the bodies of the volcanic Cretaceous units at Mt. Carmel, their composition, and origin of the eruptive rocks, and associated these activities with the carbonate sediments that accumulated at that time. The most recent geological map (Segev and Sass, 2009 - Atlit Sheet) was compiled and is accompanied by a comprehensive Explanation Report summarizing the geology of Mt. Carmel and its surroundings. However, the volcanic complexes of Mt. Carmel have not been mapped in detail as individual bodies. To conduct a detailed mapping programme, Shefa Yamim verified the nature and continuity of these volcanic bodies on Mt. Carmel. Subsequently it has been demonstrated by Shefa Yamim that the Kishon Valley yields diamonds, natural moissanite and gem corundum (DMCH) as well as volcanic-related Kimberlitic Indicator Minerals (KIMs). The primary source of these minerals had to be identified. A programme was designed and implemented to ascertain which of the intrusions on Mt. Carmel have the better DMCH potential, and are the most likely sources of these minerals in the Kishon Valley. Obviously only the intrusions that are drained by the north-eastward flowing tributaries of the Kishon River have contributed, but this does not preclude intrusions on the western slope from containing DMCH as well.

9.2.4 In-house Geological Mapping

Geological mapping and verification of previous mapping was performed by Shefa Yamim in various areas across the permit areas. Specific areas in the volcanic bodies were surveyed to validate previous mapping campaigns, using photo geology, field mapping and remote sensing. The exploration target of the Mid Reach was not mapped before. Shefa Yamim used the maps of the slopes that border it from the west and east of Mt. Carmel (Atlit sheet: Segev and Sass, 2009) and Tiv'on Hills respectively to assist in the mapping of the Mid Reach part of the valley. Shefa Yamim 3D geological modelling of this transient alluvial placer is based on borehole logging data, complimented by geological and structural mapping data from limited outcrops along the valley slopes. Data is captured in a database that is accessible for geological modelling using 3D geological modelling software. The geological modelling, which represents the key lithologies identified in Shefa Yamim's borehole lithological logging database, is regularly updated as new data becomes available.

9.3 Geophysics

Since the onset of exploration in 1999, regional and site specific remote sensing and geophysical methods were used as auxiliary methods to locate volcanic bodies, to define geological boundaries in

areas covered in pedogenic units and to cross-validate existing data. The preliminary database relied upon the historical aeromagnetic survey of Domzalski in 1967. Shefa Yamim applied state-of-the-art methods both at the Mt. Carmel volcanic bodies areas (site-specific high-resolution ground magnetometer surveys over ten volcanic bodies) and in the Kishon River catchment throughout the central and western Galilee.

Target areas and their surroundings are surveyed by various geophysical methods that included: spectral analyses by means of multi-band Aster imagery (remote sensing); Time Domain Electro-Magnetics (TDEM); GAP (Ground Acoustic Penetration); and Ground Magnetics (MAG) surveys.

In addition, interpretation of industrial seismic reflection surveys (1970's - 1990's) is also implemented into the geological model, specifically in the deep basins of the Kishon catchment Zevulun (Distal Reach) and Yizre'el (Proximal Reach).

9.4 Geochemical Surveys

Volcanic bodies and their eroded, alluvial products are the primary focus of the geochemistry analyses. Comprehensive geochemical analyses are routinely carried out on both macro- and micro-petrographic analyses using binocular-microscope and microscopic identification of grains and the degree of alteration (thin section petrography). This is followed up by a detailed analysis of the chemical composition of a representative number of the minerals recovered using a Scanning Electron Microprobe Quantometer (SEMQ), scanning electron microscope (SEM) and X-Ray Diffraction (XRD). Further investigations include specified sampling programmes designed over potential target source rocks in the field, done to track soil chemical "fingerprints" of minerals at target rocks (Mobile Metal Ion (MMI) detection). Shefa Yamim also cross validates its progress by using the services of external laboratories to study its rock samples and minerals, and to analyse them chemically.

Shefa Yamim collaborates with several academic institutions in unravelling the nature of the volcanic bodies on Mt. Carmel and surroundings to assist in exploration target prioritisation. Of these, the Macquarie University in Australia is engaged since 01/2014 in the study of mineral assemblages found within Shefa Yamim's permit areas. The study is led by Professor Bill Griffin, an expert in the Earth's mantle geology. His team is currently examining moissanites, sapphires, rubies, and Carmel Sapphire minerals sampled from Mt. Carmel volcanic bodies, and the alluvial sediments within the Kishon valley. The aim of the research is to investigate the link between mantle conditions and the crystallisation of corundum and moissanite at such depths. These minerals hold the key to understanding their formation in the northern Israel region, a geological setting that is so far considered unconventional for gem mineral findings. The reason for the unconventional concept lies in lack of clear evidence for a subduction regime (i.e. ophiolites) and in the fact that this is a rifting zone, with crust thickness that does not exceed 25km at the Haifa Bay area (Rybakov *et al.*, 2000).

Petrographic definition of rock samples was undertaken by De Beers Africa Exploration, a branch of the international parent company well-known for its involvement in the mining industry. Over a

period of several years, samples were also sent to the laboratory of Dr Yudalevich at Ben-Gurion University, Beer-Sheva, Israel. These laboratories provide the company with professional petrographic reports that enable Shefa Yamim to verify its own findings. The chemical composition of various minerals and especially KIMs recovered by Shefa Yamim in its samples were initially examined by the Geological Survey of Israel's geochemical laboratory using SEM and XRD techniques to identify the minerals. Since 2007, the chemical composition analyses are routinely performed by the South African company, *Mineral Services Laboratory Ltd* and by SGS Laboratory, Canada.

Several of the zircon grains recovered from Shefa Yamim samples were radiometrically dated by the lithospheric dynamics group of De Beers to improve the understanding of the range of ages of potential target source rocks (Ward *et al.*, 2005; Fig. 19). Chemical compositions results of its samples are subjected to screening methods (classification schemes of Grutter *et al.*, (2004); Schulze (2003); and thermobarometry plots of Nimis & Taylor (2000); and Nimis & Grutter (2010), which are internationally recognized and scientifically renowned for determining the occurrence of diamond-bearing intrusive rocks. These screenings are used as an effective, global standard method in the gem exploration world to provide a better understanding of the source rocks environment, its nature and the stability field of mineral findings regarding their formation (i.e. pressure, depth, temperature and composition).

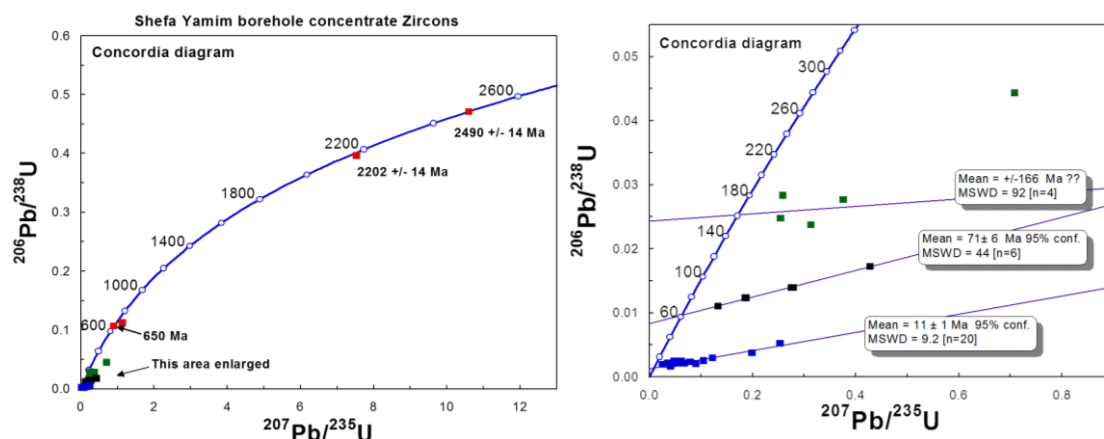


Figure 19: Zircon age Concordia diagram (Ward *et al.*, 2005). Diagram on the right is an enlargement of the indicated section of the diagram on the left.

Over the years, Shefa Yamim consulted on a continuous basis with renowned geochemical experts (e.g. E. Gnos, W.L. Griffin, D. B. Apter) to study Shefa Yamim's unique mineral assemblages, their chemical properties and unique inclusions that appear within and across the crystals. The results of the above findings point to an unusual provenance, indicating a complex geological history prior to the erosion and placer accumulation of these minerals. The geochemical evidence with reference to the Mt. Carmel volcanic bodies indicates a deep and high temperature magma source for the minerals. The results obtained here contributed generously to the understanding of the prevailing geological conditions at Mt. Carmel and of Israel and the Levant region in general.

9.4.1 Mobile Metal Ions (MMI) Technology

MMI™ is a proprietary SGS geochemical survey technique used to locate buried deposits at depth. During the MMI™ procedure, sophisticated chemical processes and instrumentation are used to measure MMI (charged metal atoms and molecules) that have migrated into surface soils from mineralization sources below. MMI™ geochemistry strips mobile metal ions from the exterior of soil particles using a partial dissolution without digesting the soil itself, to measure metal ion concentrations in the parts per billion (ppb) range. By measuring only mobile metal ions in surface soils, SGS MMI™ surveys produce sharp responses (anomalies) over buried ore deposits.

MMI-M: The use of a weak partial extraction in soil geochemical exploration for kimberlite has been demonstrated to be useful in exploration programmes worldwide. Therefore, soil geochemical surveys utilizing the Mobile Metal Ions (MMI-M) technology were performed successfully over a few of Shefa Yamim's exploration targets (e.g. Bat Shelomo volcanic complex and Ramot Menashe, both part of Shefa Yamim prospecting areas).

9.5 Drilling

9.5.1 Introduction

Shefa Yamim has drilled a total of 186 boreholes to date. Borehole diameters range from 0.063 – 1.0m and the maximum depth drilled was 300m. Drilling started in 1999 and is still on-going in accordance with the company's work programme. The geographical extent of the drilled area generally follows a northwest to southeast trend that is from the distal reach of the Kishon catchment upstream. This overview describes the chronological development, from preliminary drilling in the Distal Reach, to the Mid Reach where 146 holes were drilled to date. Based on this progress, cross sections were drawn and 2D/3D modelling is ongoing. Shefa Yamim delineated the Mid Reach Zones 1 and 2 as specific exploration targets within the frame of this confined segment between Tel Kashish and Jalame Junction (Figures 5 & 21).

9.5.2 Holes in the Distal Reach

During the period 1999 to 2000, a total of 10 small (63mm) diameter boreholes were drilled, spaced over 8km along the down-valley profile of the lower reaches of the Kishon River Valley, the so called Distal Reach (Fig. 20). Drilling was done using a 63mm diameter rotary drill. Shefa Yamim began its drilling campaign close to the present coast. The ten deep holes of 300m each were drilled along the centre of the valley. The core was analysed in terms of its lithology and heavy mineral content. Detailed mineralogical analysis of the heavy mineral fraction obtained from the core of the 10 boreholes revealed abundant KIMs. As mentioned previously, a total of 64 diamonds (63 micro-diamonds of 0.12ct in total and one 0.88ct stone) were recovered from these core drill holes.

Shefa Yamim's geological model depicts a marine terminal placer at the fluvial\coastal transition zone in the Kishon River mouth area. This area has well-developed TMA occurrences because of marine reworking mechanisms acting here. However, currently the target horizons are buried at depths that range from 30 – 60m below mean sea level (bmsl).

The drilling programme was followed by a surface sampling programme. Surface samples were collected on the floodplain of the Kishon River during 2003 to 2004 based on fluvial and alluvial systematically sampling procedures supervised by Shefa Yamim's geological and exploration consultants. During the period November 2004 to December 2004, three large diameter (1m) auger boreholes were drilled in the section of the Kishon River valley that produced the most favourable results during the 1st drilling phase of 1999 to 2000. Further mineralogical studies in the Distal Reach of the Kishon River yielded 11 more diamonds from the three boreholes.

9.5.3 Holes in the Area between the Distal and Mid Reaches

Further upstream (between Yagur and Jalame) seven more holes were drilled to shallower depths (SY-11 to SY-17), also recovering TMA occurrences. TMA have been recovered from Shefa Yamim boreholes 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, and 15 (Fig. 20). These findings were presented by Kalmanovich and Roup, (2007). The heavy and indicator minerals recovered the full TMA including the DMCH suite - diamond, moissanite, and corundum (ruby, Carmel Sapphire and sapphire), and HIM suite: garnet (pyrope), ilmenite, pyroxene, rutile, and zircon. Other minerals present are amphibole, kyanite, magnetite, hematite, pyrite, limonite, spinel, olivine and barite (Kalmanovich, *et al.*, 2008).

SEM examination of the pyrope garnets shows a significant enrichment of MgO and also a high content of Cr₂O₃ in the spinels. Both these factors show a strong association with kimberlite. A new borehole SY-18 (Figs. 25 & 26), drilled in the Kiryat Haroshet area during 2008, yielded the complete DMCH suite of minerals, including one micro-diamond. Based on these findings, Shefa Yamim progressed to the southern part of the Mid Reach towards Tel Kashish and added two closely-spaced holes near borehole SY-18, namely SY-28 and 29.

9.5.4 Drilling in the Kishon River Mid Reach target: Tel Kashish - Jalame Junction

The Mid Reach of the Kishon River is flanked by lower terraces that occupy the floodplain at this narrow valley section. Since 2013 the Mid Reach area became the focus of attention and is currently explored by on-going drilling and bulk sampling across various target areas. Two main exploration targets on its right bank yielded relatively high concentrations of TMA including DMCH and HIM suites from drill core and are located on both sides of the large (800m wide) Kali'a River alluvial fan. The area was divided into two sub-zones comprising a northern target area that was termed "Zone 1" and the southern target area termed "Zone 2" (Figs. 21 & 23).

Shefa Yamim's 3D modelling of this transient alluvial placer is based on borehole logging data, complimented by geological and structural mapping data from limited outcrops along the valley slopes. The geological modelling, which represents the key lithologies identified in Shefa Yamim's borehole lithological logging database is regularly updated as new data becomes available.

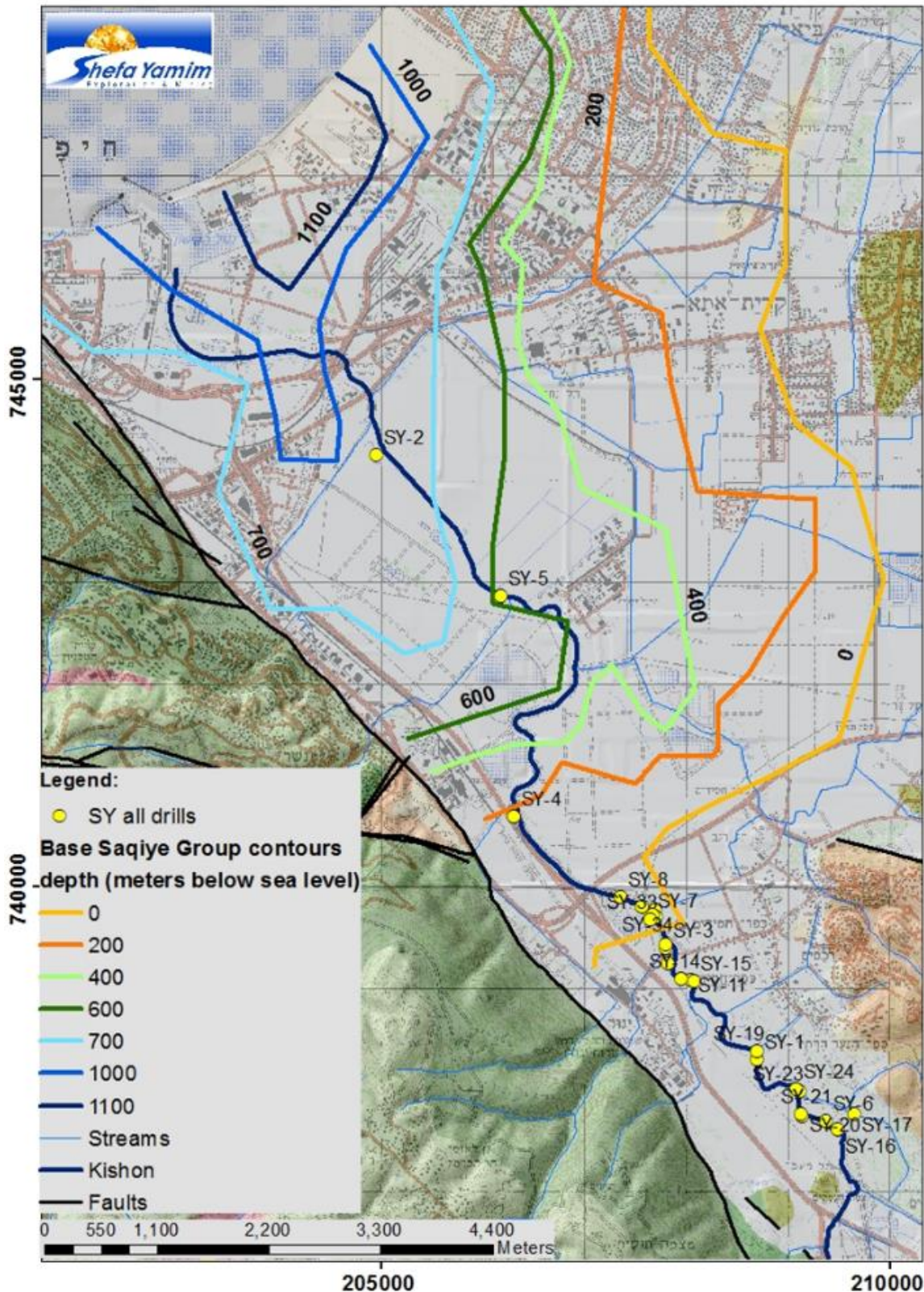


Figure 20: Location map for Shefa Yamim's boreholes (1st Phase) across the Distal Reach of the Kishon Valley from Jalame Junction (Turkish Bridge) to the Mediterranean coastline (Haifa Bay). Coloured contours show the base of the Sakiye Formation horizon, in meters below surface.

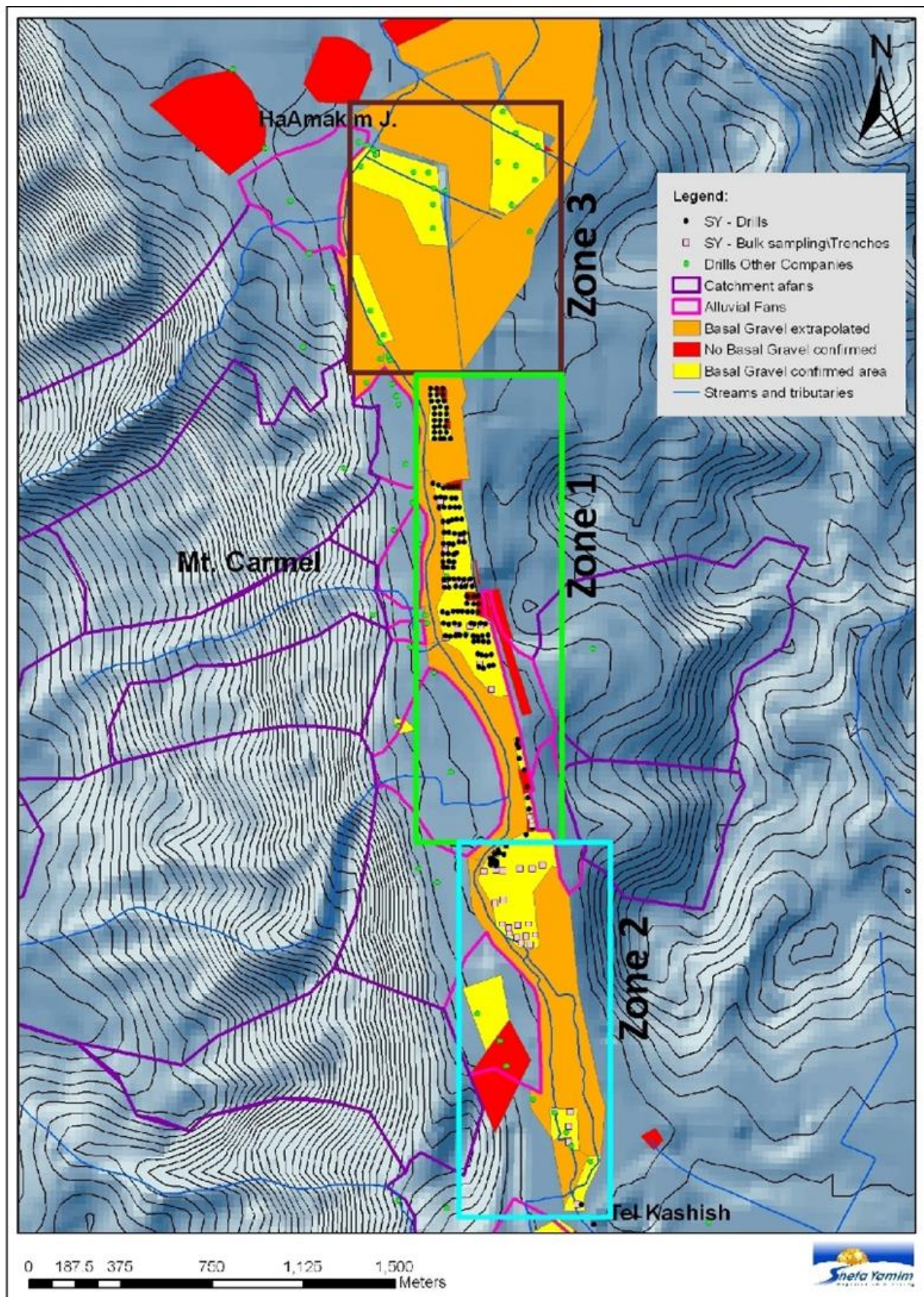


Figure 21: Location map for Shefa Yamim's Mid Reach model from Jalame Junction (Turkish Bridge) to Tel Kashish including alluvial fans (pink outline), their correlative catchment areas (purple), and gravel occurrence polygons (yellow). Note that Zones 1, 2 and 3 incorporate the largest alluvial fan from both sides.



Figure 22: Structurally-confined Mid Reach of the Kishon Valley in the area of Kiryat Haroshet (Zone 2 - Exploration Target). Note the comparatively wide (~250m), low terrace (double-head arrow) flanking the Kishon River (flow direction is from south to north). Bedrock outcrop (10x5 meters) was mapped on the terrace.

9.5.4.1. Shefa Yamim SY-35 to SY-64 Drilling Campaign (Zone 2; October 2013)

A large diameter (70cm) drilling campaign commenced in 2013 with 30 boreholes (borehole numbers SY-35 to SY-64) drilled to a maximum depth of 26m. These were done to test local stratigraphy and collect samples for analyses. The drill samples were treated at the Shefa Yamim's processing facility at Akko and their final concentrates were processed and sorted at the Akko laboratory. The drill logs have been coded and updated to facilitate storage and capturing in the GIS database.

This Mid Reach drilling campaign SY-35 to SY-64 (Zone 2) could be divided into 2 geographic sectors. The northern sector includes boreholes SY-35 to SY-46 (Fig. 23) and the southern sector includes holes SY-47 to SY-64 (the enlarged box in Figure 23) that were performed near previous bulk samples and 3 boreholes (SY-18 (Fig. 22), SY-28, SY-29) that showed positive DMCH mineralogical results.

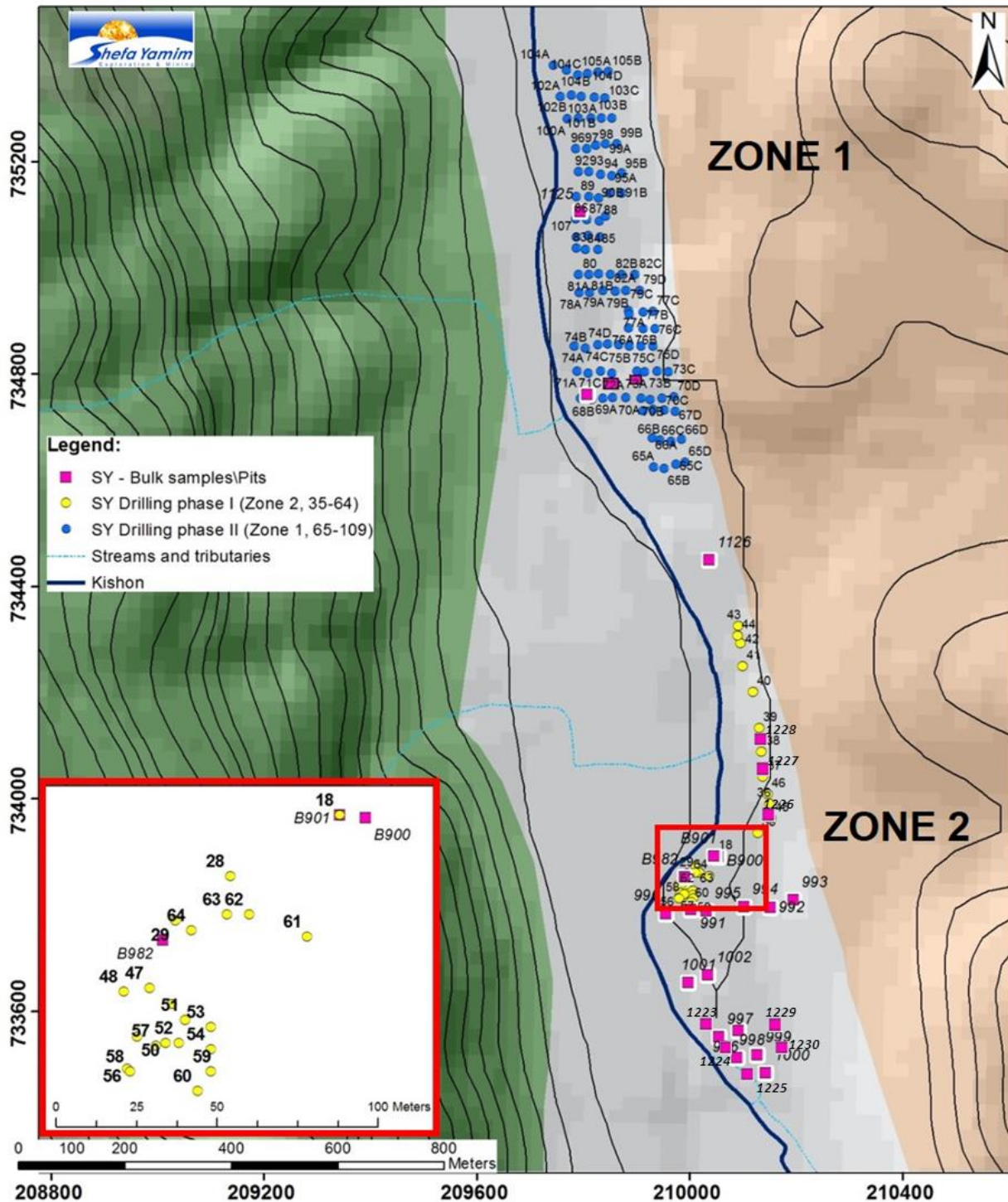


Figure 23: Borehole and bulk sample locations in the Mid Reach- Zones 1 & 2 (target areas). Enlargement of Zone 2 is shown in the left-hand corner.

The northern sector (SY-35 to SY-64) is aligned north - south. Its 3D modelling is thus very preliminary. However, cross sections, correlating between individual boreholes, enable a preliminary image of the subsurface gravel as well as the overburden thickness (clay soil cover thickness). A north to south longitudinal section of the terrace in the Right Mid Reach of the Kishon River was drawn from borehole data of both drilling campaigns. A preliminary 3D image was produced for the southern sector at this stage.

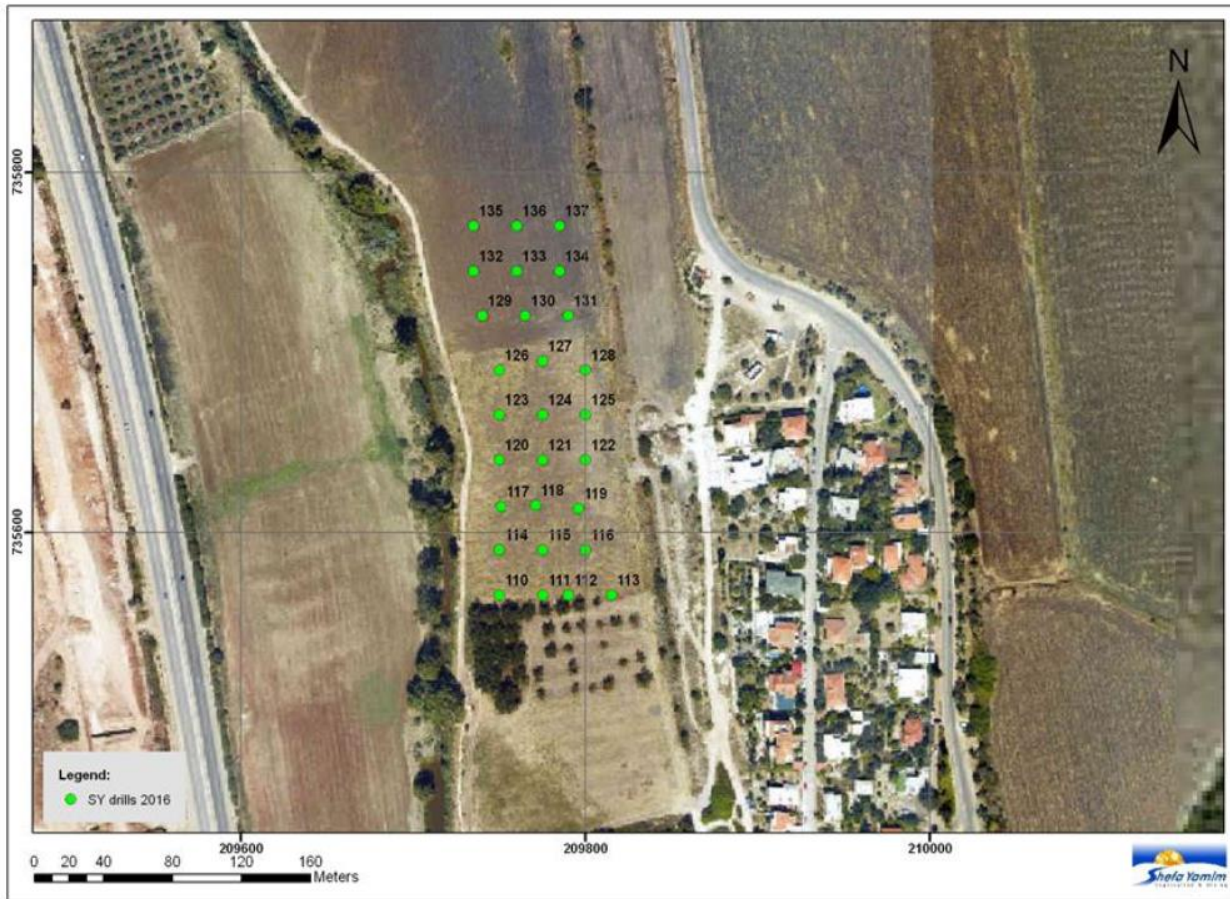


Figure 24: Drillholes SY-110 to SY-137 (Diameter = 0.5 m) drilled in distal Zone 1, July 2016.

9.5.4.2. Shefa Yamim SY-65 to SY-109 Drilling Campaign (Zone 1; May-June 2014)

A detailed and closely-spaced drilling campaign (total of 97 new boreholes, $\Phi=0.7\text{m}$ - 1m ; max total depth: 16m) was done during May - June 2014 and produced promising findings; each borehole yielded TMA minerals. Drilling commenced at $\Phi=0.7\text{m}$, but from borehole SY-80 onwards, the drill bit diameter was enlarged to $\Phi=1\text{m}$. It should be noted that only the targeted gravel beds were sampled. The boreholes cover an area of $800\text{m} \times 120\text{m}$ with an average gravel thickness of 4m .

Based on drilling results, some 20 cross-sections were prepared to interpret the morphology of the Kishon River valley floor and to identify possible palaeo-channels. In addition, a total of 12 longitudinal sections were drawn along the Kishon River valley, from Jalame to Tel Kashish (Fig. 21). These longitudinal sections aided in locating traps and bedrock steps that may have assisted in the concentration of heavy minerals.

9.5.4.3. Shefa Yamim SY-110 to SY-137 Drilling Campaign (Zone 1; July 2016)

A further 28 boreholes were drilled (pile Vidia drilling) in the distal portion of Zone 1 of the Kishon Mid Reach placer in July 2016 (Figs. 24 & 25a).

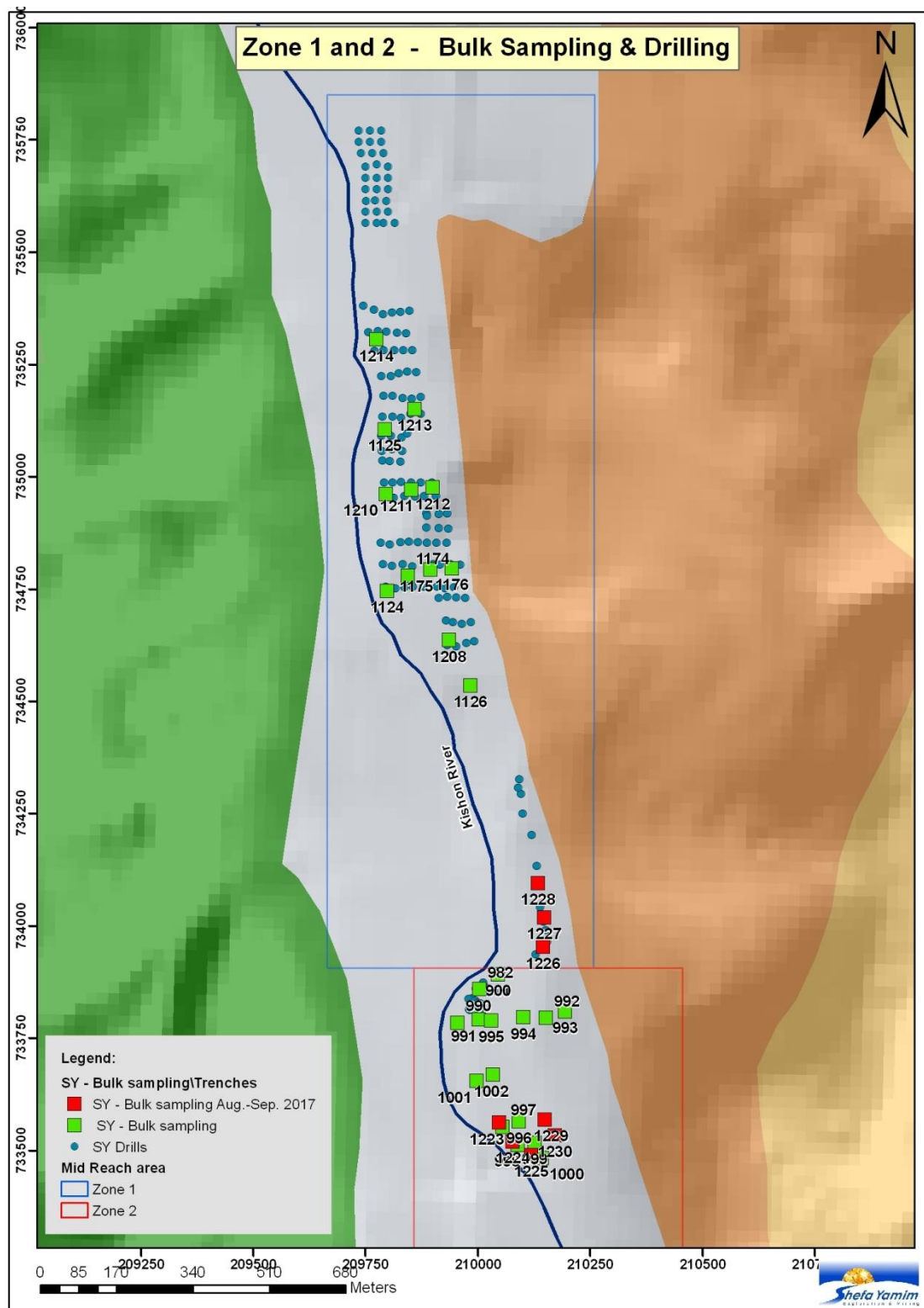


Figure 25a. Borehole locations and bulk sample positions in the Zone 1 of the Mid Reach.

The diameter of these auger holes was 0.5m and holes were spaced across the palaeo-Valley at mostly 3 holes per line (except for the starting line, holes 110 to 113 = 4 holes). The drillhole cuttings were then amalgamated per line into 9 composite samples, averaging 6.7 tonnes each, which were then processed for gemstone and heavy mineral presence.

The principal findings from the 28 holes (hole numbers SY-110 to SY-137 inclusive) were:

1. A total of 321.5 m was drilled, including overbreaks, along the right bank terrace of the Kishon River, confirming the presence of the palaeo-Kishon gravels and extending Zone 1 for some 400m in a downstream direction at collar elevations of 16 – 20m amsl.
2. The average drillhole depth was some 11.5m.
3. The overburden cover ranged from about 3.5 to 7m, with a peak of 12.5 m at one locality.
4. The average placer gravel thickness in all the lines, except the most distal line of Holes SY-134, SY-135, SY-136 and SY-137, was some 3.5 m (range 2 – 5m). In the most distal drill line, Holes SY-134, SY-135, SY-136 and SY-137, average gravel thickness dropped to about 1m (range 0.7 – 2 m).
5. All 9 composite samples tested positive for the presence of gemstones and heavy industrial minerals, except for diamonds. The Carmel Sapphire was the most abundant gemstone mineral and garnet the most common heavy industrial mineral.
6. All drillholes were logged according to the Shefa Yamim standards and the data are now ready for incorporation into the detailed 3-D geological model to update the volumes of the placer deposit, and its associated overburden and internal waste.

These findings will result in a positive increase in the resource volumes and distribution of mineralised gravels for Zone 1 of the Kishon Mid Reach placer. The most downstream drill line, notably drillholes SY-134, SY-135, SY-136 and SY-137, marks the transition from the more confined Zone 1 that hosts thicker placer gravels into the wider, more open palaeo-Kishon Valley of Zone 3 in the Jalame Junction area that hosts thinner placer gravels with thicker overburden.

9.5.5 General Stratigraphy of the Mid Reach Fluvial and Alluvial Sediments

The overall stratigraphy from bottom to top includes three main units: bedrock, gravel and sandy-clay overburden. However, the alluvial section is complex with limited to no continuity, local lenses, intercalations and lateral sub-unit shifts are portrayed. Generally, the bedrock unit is a carbonate substrate of chalk to marly chalk, at places cherty chalk or limey chalk. Overlying the chalk is a mixed layer of bedrock-derived gravel and gravel that cannot be differentiated easily. This unit was mostly water-logged and gritty (groundwater level was reached while drilling). Its general colour is grey-brown.

Overlying the mixed layer, a basal gravel bed is found in most of the drilled area. This bed rests directly on the bedrock and is assumed to represent palaeo-Kishon basal gravels. Gravel pebbles, cobbles and boulders are in the range of 4 - 700mm, with minimal grit in the 2 - 4mm fraction. Overlying the basal gravel is the overburden clays and sandy clays of this fining-upward sequence and ultimately the uppermost level of which is affected by soil processes (pedogenesis). Local clayey lenses are found across the gravel beds, dividing them into basal (lower) and suspended (upper) sub-units.

Mid Reach exploration activities include boreholes and bulk sampling in the two main areas, Zones 1 and 2. Exploration data is being collected and captured on the move with new infill holes facilitating the 2D and 3D modelling of the placer deposit. Bulk sampling positions are determined from drilling results that in turn provide the data for cross and oblique sections.

9.6. Bulk Sampling

9.6.1 Introduction

The bulk sampling programme part of the exploration has been performed in various target areas throughout the permit area. Of special significance are the (1) volcanic body at the RMC and headwater streams that drain the RMC and (2) the Mid Reach of the Kishon River (Zones 1 & 2). To date, a total of 46 pit and bulk samples, representing a combined 7,241.760t of gravel, have been collected (Tables 4 & 5).

Initially, bulk sampling focused on the magmatic rocks on Mt. Carmel and in particular the RMC. A total of 10 bulk samples were extracted from pits along the Rakefet-Yoqneam drainage system. However, with the appreciation of the extent of placer formation taking place in the drainage systems receiving eroded material from Mt. Carmel led Shefa Yamim to extend the bulk sampling programme further to the north to the more distal reaches of the Kishon catchment. This was focused in particular just down-valley from the extensive alluvial fan deposits at the foot of Mt. Carmel. Here the main focus is on the Mid Reach section of the Kishon River floodplain and down-valley from the RMC tributary confluence with the Kishon River.

The bulk samples are collected from short trenches excavated approximately perpendicular to the palaeo-flow direction of the ancient Kishon course preserved in low terraces flanking the modern course. These bulk sample trenches, some 20 - 30m long by 4 - 5m wide, are excavated down to the bedrock (footwall) contact through a total sediment thickness of some 6 - 8m, of which the basal target gravels comprise some 1 - 4m. Some 400 – 500t of carbonate-dominated coarse basal gravels is removed to the dedicated treatment facility operated by Shefa Yamim in Akko where the sample is scrubbed, screened (bottom screen size is 1mm), jigged to concentrate the heavy minerals which are then hand-picked in a secure laboratory by trained personnel. All sample concentrates are kept for audit purposes and the basal gravel tailings are returned to the bulk sample trench where, together with the overburden fines, the excavations are back-filled and rehabilitated.

Table 4: Bulk sampling in the Mid Reach - status at October 2017

Status	Tons
Sampled to date:	11,372.220
Treated to date:	6,583.200
Untreated:	4,789.020

Shefa Yamim has sampled five (5) pits excavated by outside contractors and operators; see Table 5 below. The gravel component in each test pit was excavated with the necessary care and transported to Shefa Yamim's operational site in Akko.

The five samples are:

SY-1137: 100t, Jalame Junction water pipe installation facility. Completely treated.

Sy-1126: 90t, Mid Reach of Kishon River near holes SY-65 – SY-109. Completely treated.

SY-1128: 30t, P.E.I. pipe installation facility. Completely treated. SY-1129: 120t, P.E.I. pipe installation facility. Completely treated. SY-1023: 150t, I.E.C. construction pit, completely treated (Table 5).

9.6.2 Bulk Sampling in the Kishon River Mid Reach Target: Tel Kashish - Jalame Junction

The Mid Reach of the Kishon River from Jalame Junction to Tel Kashish extent over a distance of some 4.5km. Prioritisation of exploration targets led to a division of this area into 4 main segments, from north to south (A-B-C-D). These segments were selected based on mineral recovery during the drilling campaign and general geological and morphological considerations. Areas B and C correspond to target Zones 1 and 2.

Shefa Yamim has done closely-spaced exploration pit sampling (10 – 600t samples) in two key areas namely near bulk sample 982 (Figure 22) (Kiryat Haroshet; Zone 2) and near boreholes SY-65 to SY-109 (Zone 1). As shown in Table 5 a total of 4,127.720t of the pit and bulk samples excavated have been treated and some 43% of the samples excavated still await treatment. Some of the more prominent samples excavated and treated are discussed in detail below.

Table 5: Pit & Bulk Samples of Shefa Yamim permit areas (October, 2017)

B"H



All Shefa Yamim (SY) Trenches & Pits sampled to date - Current status dated 01/10/2017

No.	X	Y	Sample	Date of sampling	Weight in kg.	weight in Ton	Trenched By	Location	Treatment State
1	206325	729449	479	12/09/2007	50,000	50.00	SY	Rakefet Magmatic Complex	Completed
2	206233	729680	480	12/09/2007	40,000	40.00	SY	Rakefet Magmatic Complex	Completed
3	207719	728461	690	2-6/12/2009	100,000	100.00	SY	Rakefet Magmatic Complex- Rakefet Fan "head"	Completed
4	207878	728328	691	10-11/1/2010	100,000	100.00	SY	Rakefet Magmatic Complex- Rakefet Fan "toe"	Completed
5	210840	730739	707	12-13/1/2010	100,000	100.00	SY	Yokneam river	Completed
6	206731	729533	708	17/01/2010	50,000	50.00	SY	Rakefet Magmatic Complex	Completed
7	210353	730217	771	19-22/8/2010	60,000	60.00	SY	Yokneam River (construction site)	Completed
8	210601	730507	787	19-20/10/2010	100,000	100.00	SY	Old Yoqneam River	Completed
9	208357	728454	850	01/06/2011	50,000	50.00	SY	Yokneam river	Completed
10	210694	730580	851	5-6/6/2011	100,000	100.00	SY	Yokneam river	Completed
11	210054	733891	900	11/09/2011	50,000	50.00	SY	Kiryat Haroshet near Drill SY 18 - Zone 2	Completed
12	210046	733892	901	12/09/2011	15,000	15.00	SY	Kiryat Haroshet near Drill SY 18 - Zone 2	Completed
13	210244	732800	934	02/10/2011	40,000	40.00	SY	Mid Reach of Kishon River Kiryat Haroshet south	Completed
14	210337	732414	935	03/10/2011	50,000	50.00	SY	Mid Reach of Kishon River Near Tel Kashish	Completed
15	210303	732735	980	08/05/2012	100,000	100.00	SY	Mid Reach of Kishon River Kiryat Haroshet south	Completed
16	210307	732795	981	15/05/2012	100,000	100.00	SY	Mid Reach of Kishon River Kiryat Haroshet south	Completed
17	209991	733853	982	21/05/2012	400,000	400.00	SY	Mid Reach of Kishon River Kiryat Haroshet near drill SY18 - Zone 2	Completed
18	209955	733784	990	03/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
19	210003	733791	991	03/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
20	210152	733795	992	03/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
21	210195	733809	993	03/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
22	210102	733796	994	03/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
23	210031	733789	995	04/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
24	210092	733564	996	04/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
25	210055	733552	997	04/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
26	210089	733512	998	05/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
27	210127	733517	999	05/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
28	210143	733483	1000	04/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
29	209998	733654	1001	05/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
30	210034	733668	1002	05/09/2012	10,000	10.00	SY	Mid Reach of Kishon River Kiryat Haroshet - Zone 2	Completed
31	210302	732671	1023	23/05/2013	150,000	150.00	I.E.C.	Mid Reach of Kishon River Kiryat Haroshet south- construction pit	Completed
32	209798	734746	1124	24/08/2014	400,000	400.00	SY	Mid Reach of Kishon River near drills SY 65- SY109 - Zone 1	Completed
33	209794	735106	1125	26-27/08/14	600,000	600.00	SY	Mid Reach of Kishon River near drills SY 65- SY109 - Zone 1	Completed 07/2016
34	209984	734535	1126	14/09/2014	90,000	90.00	Mekorot Ltd	Mid Reach of Kishon River near drills SY 65- SY109 - Zone 1	Completed
35	210140	732130	1128	22/10/2014	30,000	30.00	P.E.I.	West of road 70, oil pipe installation- construction pit	Completed
36	210240	732240	1129	22/10/2014	50,000	50.00	P.E.I.	East of road 70, oil pipe installation- construction pit	Completed
37	209510	736735	1137	12/01/2015	100,000	100.00	Mekorot Ltd	Jalame Junction - water pipe installation	Completed
38	209845	734780	1174	08-09/07/2015	533,000	533.00	SY	Mid Reach of Kishon River near drills 65-109 (1124 East)	completed March 29, 2016
39	209895	734793	1175	12/07/2015	539,720	539.72	SY	Mid Reach of Kishon River near drills 65-109 (1124 East)	Completed May 19, 2016
40	209943	734796	1176	04/09/2016	508,780	508.78	SY	Mid Reach of Kishon - Zone 1	Completed May 25, 2017
41	209936	734636	1208	05/09/2016	123,460	123.46	SY	Mid Reach of Kishon - Zone 1	
42	209796	734862	1210	06/09/2016	551,200	551.20	SY	Mid Reach of Kishon - Zone 1	Completed May 16, 2017
43	209852	734972	1211	08/09/2016	518,480	518.48	SY	Mid Reach of Kishon - Zone 1	Completed Aug 30, 2018
44	209900	734976	1212	19/09/2016	535,100	535.10	SY	Mid Reach of Kishon - Zone 1	This sample in a process of treatment since Aug 24, 2017
45	209860	735151	1213	20/09/2016	347,280	347.28	SY	Mid Reach of Kishon - Zone 1	Completed February 23, 2017
46	209775	735306	1214	22/09/2016	529,740	529.74	SY	Mid Reach of Kishon - Zone 1	Completed July 6, 2017
47	209745	730377	1222	27/04/2017	22,600	22.60	Road 6	Yoqneham Tunnel - South section	
48	210048	733561	1223	23/08/2017	690,500	690.50	SY	Mid Reach of Kishon - Zone 2	
49	210078	733520	1224	24/08/2017	553,180	553.18	SY	Mid Reach of Kishon - Zone 2	
50	210120	733489	1225	27/08/2017	566,220	566.22	SY	Mid Reach of Kishon - Zone 2	
51	210146	733953	1226	10/09/2017	398,960	398.96	SY	Mid Reach of Kishon - Zone 1	
52	210149	734019	1227	11/09/2017	551,200	551.20	SY	Mid Reach of Kishon - Zone 1	
53	210134	734095	1228	12/09/2017	248,900	248.90	SY	Mid Reach of Kishon - Zone 1	
53	210149	733567	1229	26/09/2017	530,000	530.00	SY	Mid Reach of Kishon - Zone 2	
53	210172	733532	1230	27/09/2017	568,900	568.90	SY	Mid Reach of Kishon - Zone 2	
					11,372,220	11,372.220			
TOTAL Tonnage Sampled to date:							11,372.220		
Other companies pits sampled by SY- highlighted							422.6		
TOTAL Tonnage Treated to date:							6,583.200		
TOTAL Tonnage awaiting treatment:							4,789.020		

9.6.2.1 Bulk sampling in Zone 1 (SY-65 to SY-109 area)

Bulk sampling locations were chosen based on: positive TMA results in boreholes; relatively thick gravel layers of 3 – 5m thick; and increasing thickness trends shown by the geological cross sections. Bulk samples SY-1124, SY-1125, SY-1174 and SY-1175 were excavated in Zone 1.

Bulk sample SY-1124

Bulk sample SY-1124 was taken at a location just north of boreholes SY-68A and SY- 68B (Figs. 25a; 26 & 27). A total of 400t gravel was sampled here during August 24 - 25, 2014.

The general stratigraphy from bottom to top includes three main units: bedrock, gravel and a clayey overburden. The internal structure of the gravel is, however, complex, with local lenses, intercalations and lateral sub-unit shifts. Generally, the valley floor bedrock unit is a carbonate

bedrock of chalk to marly chalk, at places cherty chalk or limy chalk. Overlying the chalk is a mixed layer of bedrock derived material and gravel, which, to an extent, cannot be differentiated. This unit is predominantly water-logged. Its general colour is grey-brown.

Following the mapping and drilling programme to delineate the distribution of the Kishon Mid-Reach alluvial placer, a bulk sampling exercise has been conducted to determine the degree of mineralisation of the target mineral assemblage (TMA) within the basal gravels of this ancient river course. The presence of the TMA, comprising a gem (DMCH) suite of diamond, moissanite and gem corundum varieties (notably, sapphire and ruby) and a heavy industrial mineral (HIM) suite of non-gem corundum, garnet, ilmenite, zircon and rutile has already been proven from exploration exercises conducted earlier by Shefa Yamim. Therefore, the exploration target is a multi-commodity alluvial placer hosting higher value gem minerals and lower value industrial minerals together in basal gravels of an ancient palaeo-Kishon River.

The results of the first bulk sample (Sample Number 1124), which yielded 400 tons of basal gravels, are summarised here. The TMA was represented by all minerals, except diamond, with a total of 1431.59 cts of heavy minerals recovered, giving an overall grade (mineral content) of some 358 carats per one hundred tonnes (cpht).

Bulk Sample 1124 alluvial placer minerals were dominated by the HIM suite (98% of carats), of which the non-gem corundum made up some 69% and the garnet some 24% of the total carats. The balance of the HIM suite consisted of ilmenite (4%), zircon (0.2%) and rutile (0.1%). The recovered grade of the non-gem corundum (NGC) portion was some 248 cpht with two substantial, +10.8 carat stones found – a 23.4 ct stone, which is the largest placer stone size to date, followed by a 12.22 ct stone. The garnet portion grade was 87 cpht with the largest an 8.19 carat mineral specimen. Although non-gem corundum (NGC) and garnet are used mainly in the abrasives industry, the NGC in the Kishon Mid-Reach placer contains titanium and zircon – a composition that is being investigated further by Prof. Bill Griffin and his research team at the Macquarie University, Australia. Of the DMCH suite, which made up 2% of the total carats, sapphire was the dominant gem mineral (85%) returning a recovered grade of 6.1 cpht with the largest stone a 3.33 ct gem. Moissanite contributed some 12% of the DMCH suite, yielding 158 crystals, ranging from 1mm to 4.14mm in length, to give a recovered grade of 0.9 cpht. Significantly, these 3 – 4mm long moissanite grains add to the world record already set by Shefa Yamim for the largest natural moissanite grains known globally. Small rubies (some 3%) constituted the balance of the DMCH suite, presenting a low recovered grade of 0.2 cpht.

In Sample 1124, the bulk of the heavy minerals recovered (85%) lies in the 0.01 to 1.19 carat range, with 9% in the 1.20 – 2.49 carat range and some 6% larger than 2.5 carats. The maximum gem stone recovered was a 3.33 carat sapphire and the largest HIM was a non-gem corundum (NGC) at 23.4 carats.

Sample 1124 is the first bulk sample completed in the exploration exercise to determine an estimate of the resource potential of the multi-commodity Kishon Mid-Reach alluvial placer.

Overlying the mixed layer is a basal gravel bed comprising rounded to well-rounded gravel in the pebble to boulder size range. Boulders of up to 70cm in diameter are found. Overlying the basal gravel is dark-brown clayey overburden material. Clayey lenses are found throughout the gravel beds, dividing them into basal (lower) and suspended (upper) subunits (Figs. 26, 27 & 28).

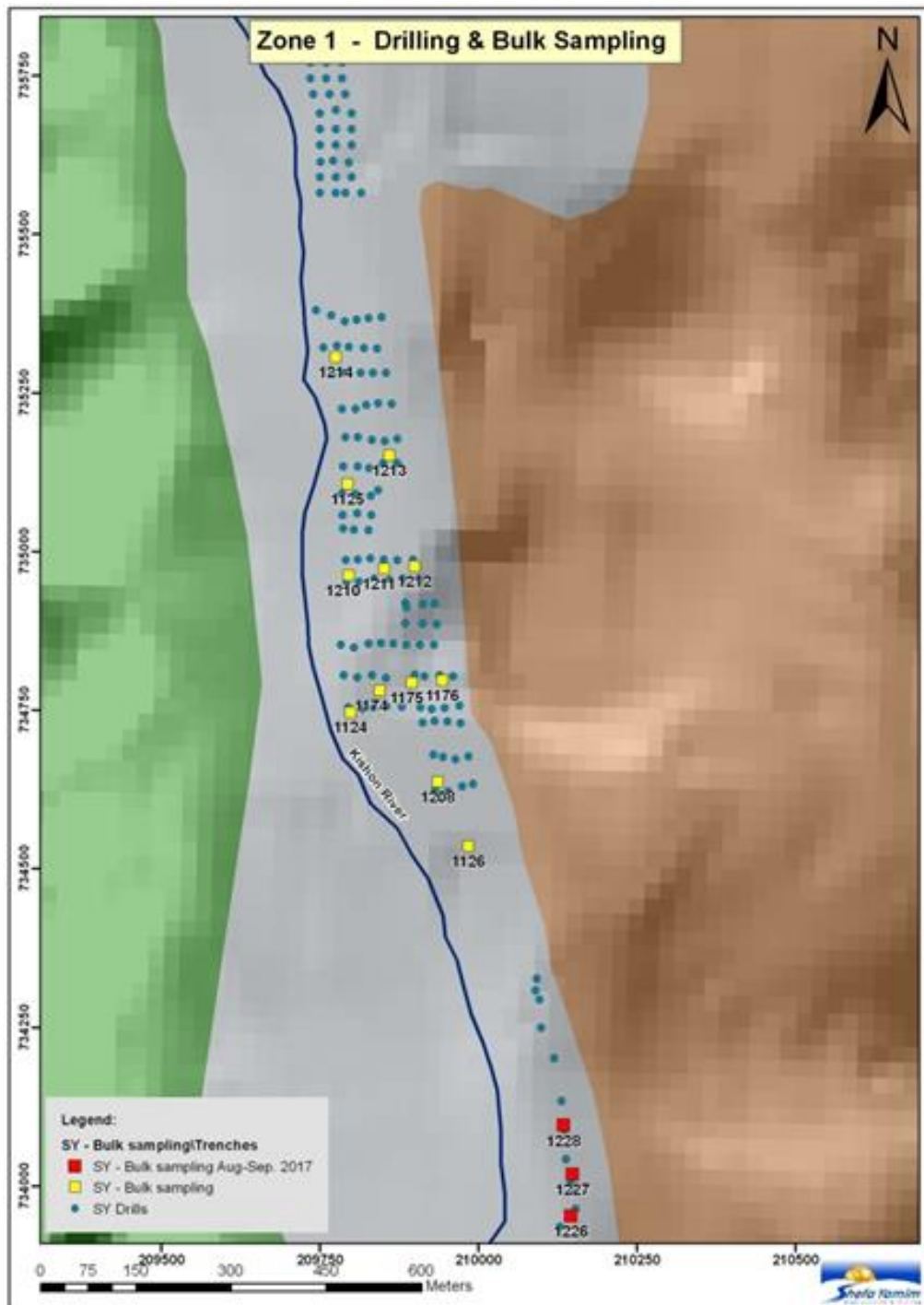


Figure 25b: Borehole locations and bulk sample positions in the Zone 1 of the Mid Reach, August – September 2017

LOCATION: Kiryat Haroshet
EW: 209798 - 209817
NS: 734756 - 734763
LOGGED BY: Shefa Yamim

BULK SAMPLE: SY-1124

G.W. TABLE: 6.3m
PIT DIMENSIONS: 19m x 4.5m x 6.3m
 Length x Width x Depth
Dated: August 24-25, 2014

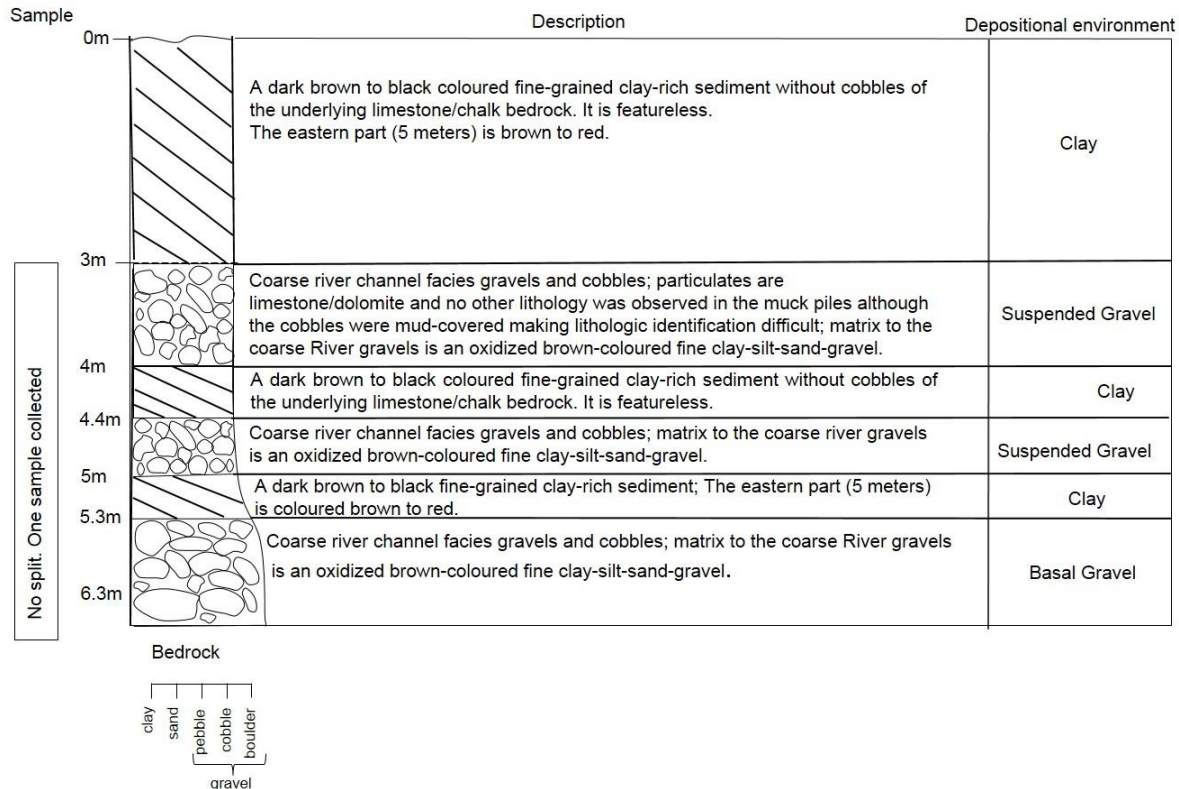


Figure 26: Trench-wall stratigraphy of bulk sample 1124.

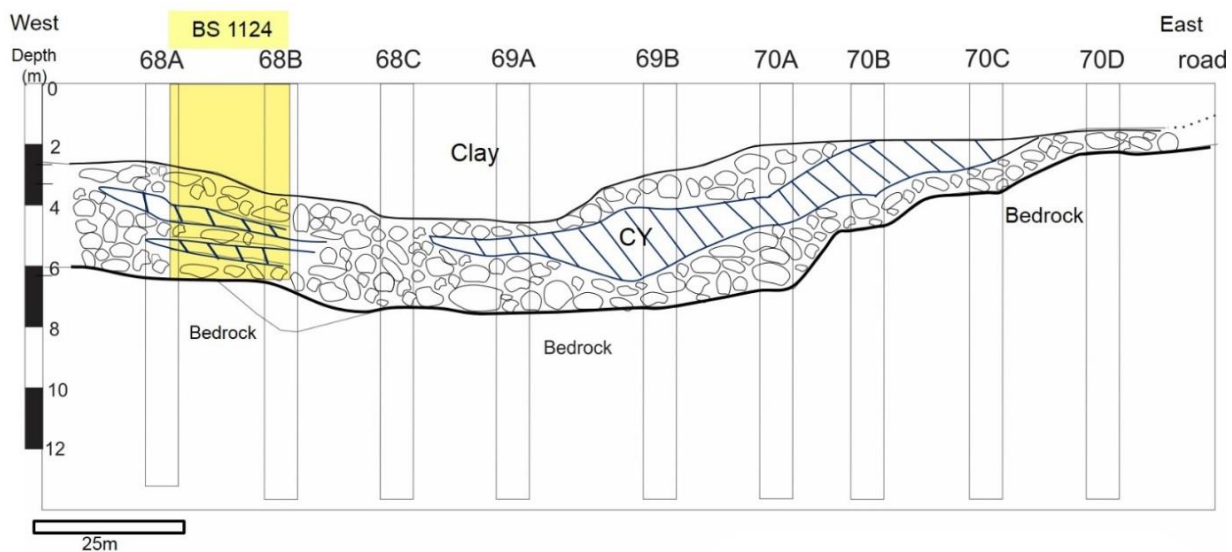


Figure 27: Geological cross-section along the wall of bulk sample SY-1124 (outlined in a yellow rectangular); extrapolated facies to the east and west was based on data from borehole logs.

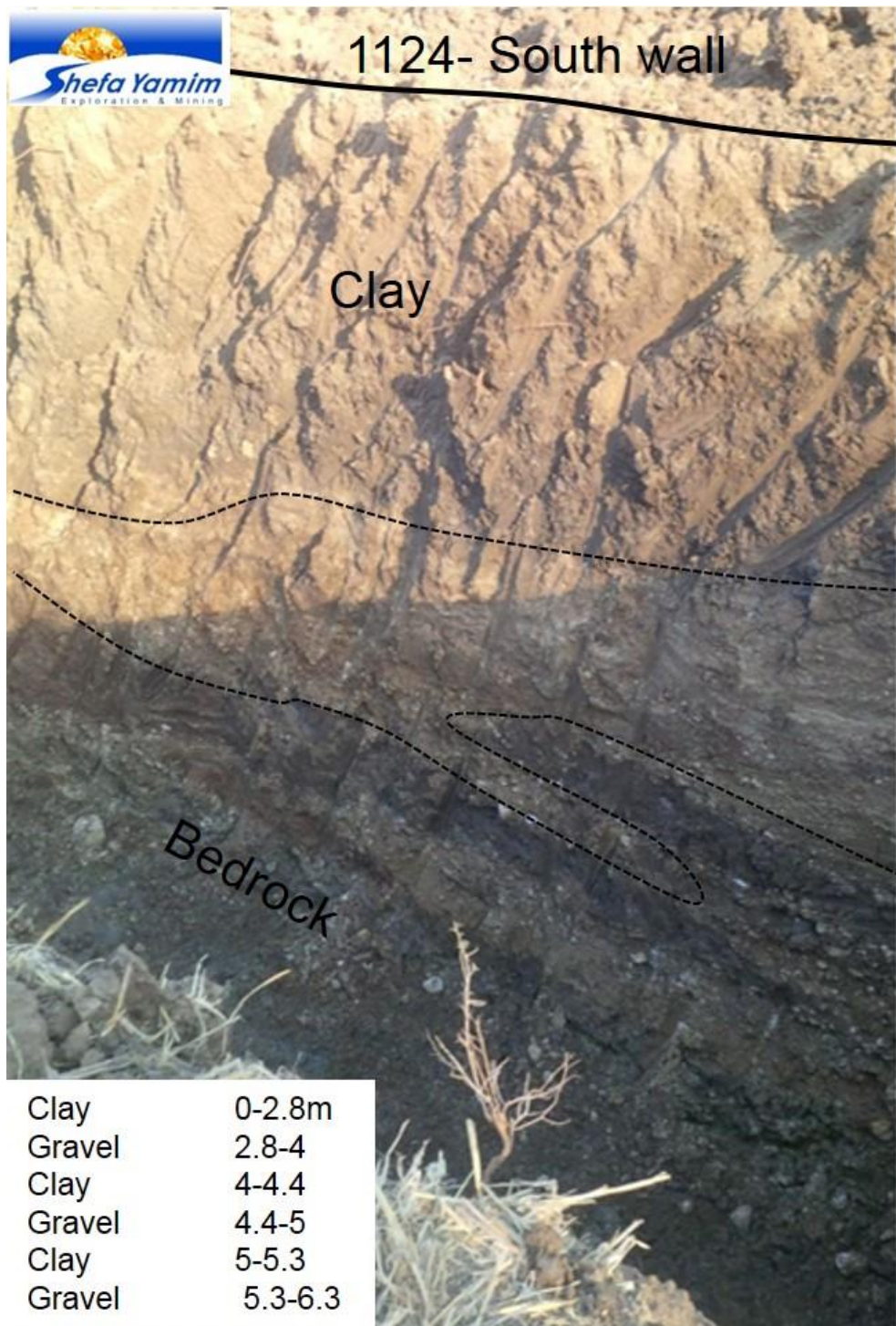


Figure 28: The southern wall of bulk sample 1124. Note two interbedded clayey lenses in the lower part of the section.

Bulk sample SY-1125:

Bulk sample SY-1125 was located at boreholes SY-86 & SY-87. A total of 600t of gravel were sampled during August 26 - 28, 2014 and transported to Shefa Yamim's processing facility for storage and future treatment. In this section of the Mid Reach of the Kishon catchment, the gravels attain thicknesses of more than 6m (Figs. 29, 30 & 31). It is worth noting that the thicknesses increase to the west, towards the present-day Kishon River. The treatment of this sample finished August 2016.

The results of the fourth bulk sample, BS-1125, which yielded 600 tonnes of target gravels, are summarised here. The TMA was represented by all minerals, except diamond, with a total of 1,330.76 carats (cts) of heavy minerals recovered, giving an overall grade (mineral content) of some 221.79 carats per one hundred tonnes (cpht) at a bottom screen size of 1mm. This overall grade for BS-1125 is the second-highest total grade after the first bulk sample, BS-1124 (358 cpht), and is higher than the second bulk sample BS-1174 (162 cpht) and the third bulk sample BS-1175 (52 cpht) total grades. This variation in total grade between the first four bulk samples reflects the nugget effect of heavy mineral distribution in an alluvial system where the gravel bars that comprise the placer deposit in the Mid Reach of the palaeo-Kishon River are semi-mobile trapsites.

As with the first three bulk samples (BS-1124, BS-1174, BS-1175), Carmel sapphire is the dominant alluvial placer mineral species in BS-1125 running at some 55% (including a 33.3 carat Carmel Sapphire in weight), followed by the HIM suite minerals garnet (33%) and ilmenite (8%) with the conventional sapphires at 3%. Minor contributions came from the HIM minerals zircon (0.6%) and rutile (0.3%) with the DMCH suite rare minerals being moissanite (0.1%), ruby (0.06%) and hibonite (0.4%). Significantly, BS-1125 has yielded the largest Carmel sapphire, at 33.3 carats, recovered to date in Shefa Yamim's exploration campaign.

The recovered grade of Carmel sapphire in BS-1125, was some 122 cpht which is the second-highest grade after BS-1124 (248 cpht). The conventional sapphire grade of BS-1125 was some 7 cpht, falling within the ranges recorded in BS-1124 (6cpht) and BS-1174 (8 cpht), but considerably higher than the 0.9 cpht recovered in BS-1175. These results further substantiate the nugget effect related to trapsite development in alluvial systems such as those found in the Mid Reach of the Kishon Valley. Thus, the decrease in overall grade from west (left side) to east (right side) of the palaeo-Kishon is, at this stage, attributed to the decreasing influence of coarse gravels introduced by steep tributary fans off Mt. Carmel across the palaeo-Kishon Valley. These coarse gravels would have promoted bar formation and thus semi-mobile trapsite development in the palaeo-Kishon River.

In BS-1125, the majority of the heavy minerals recovered (74%) lie in the 0.01 to 0.65 carat range, with some 23% in the 0.66 – 2.5 carat range and a further 3% greater than 2.5 carats. BS-1125 is the fourth bulk sample completed in the exploration program to determine a resource estimate of the multi-commodity, Kishon Mid-Reach alluvial placer. The difference in grades recovered between the first four bulk samples, notably the overall 358 cpht for BS-1124, 162 cpht for BS-1174, 52.5 cpht for BS-1175 and 222 cpht for BS-1125, as well as the grades pertinent to the individual mineral species comprising the DMCH suite and the HIM suite, respectively, at these localities confirm the nugget effect expected in alluvial gravel bar placers such as those preserved in the Mid Reach of the palaeo-Kishon River.

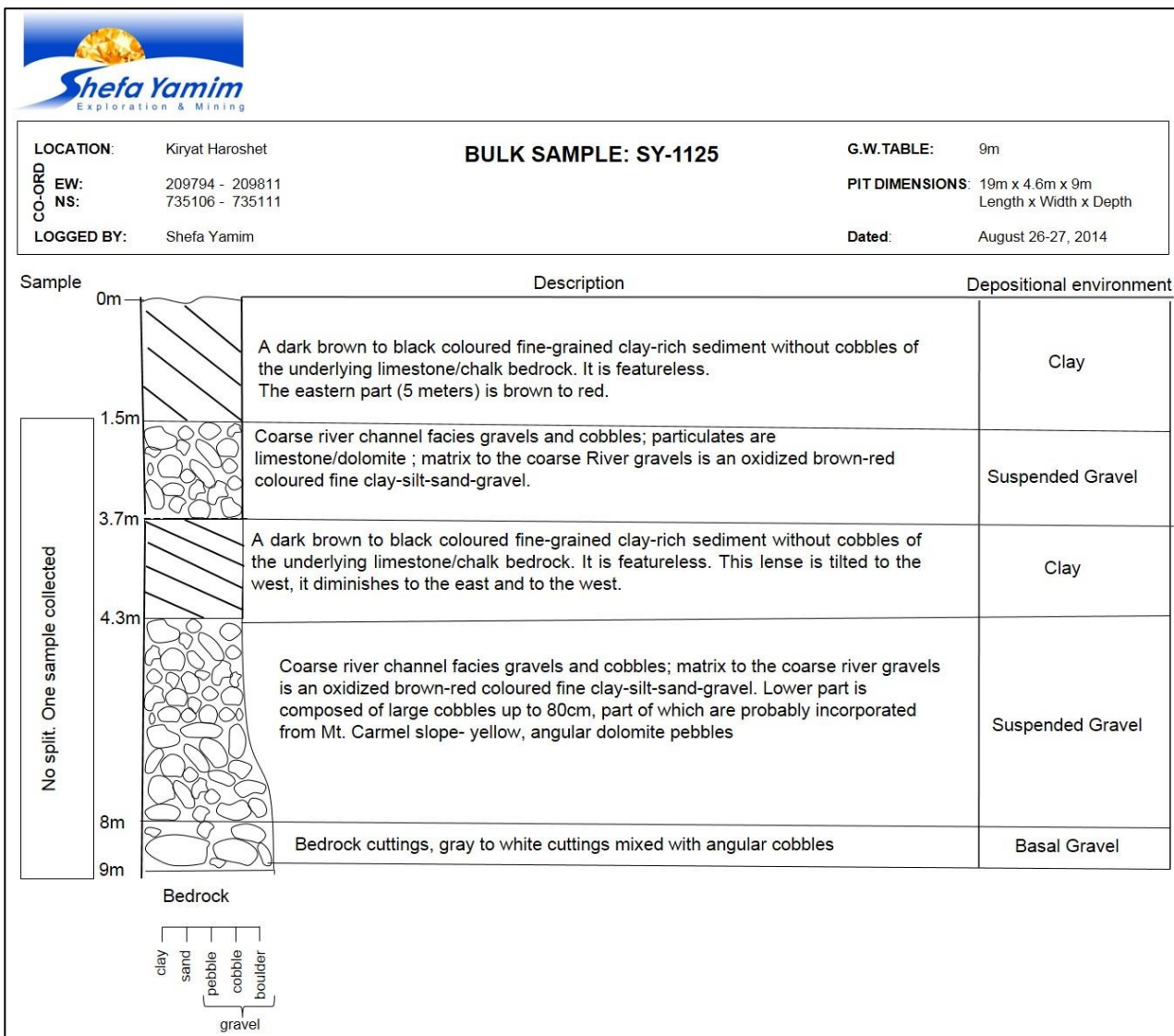


Figure 29: Trench wall stratigraphy of bulk sample SY1125.

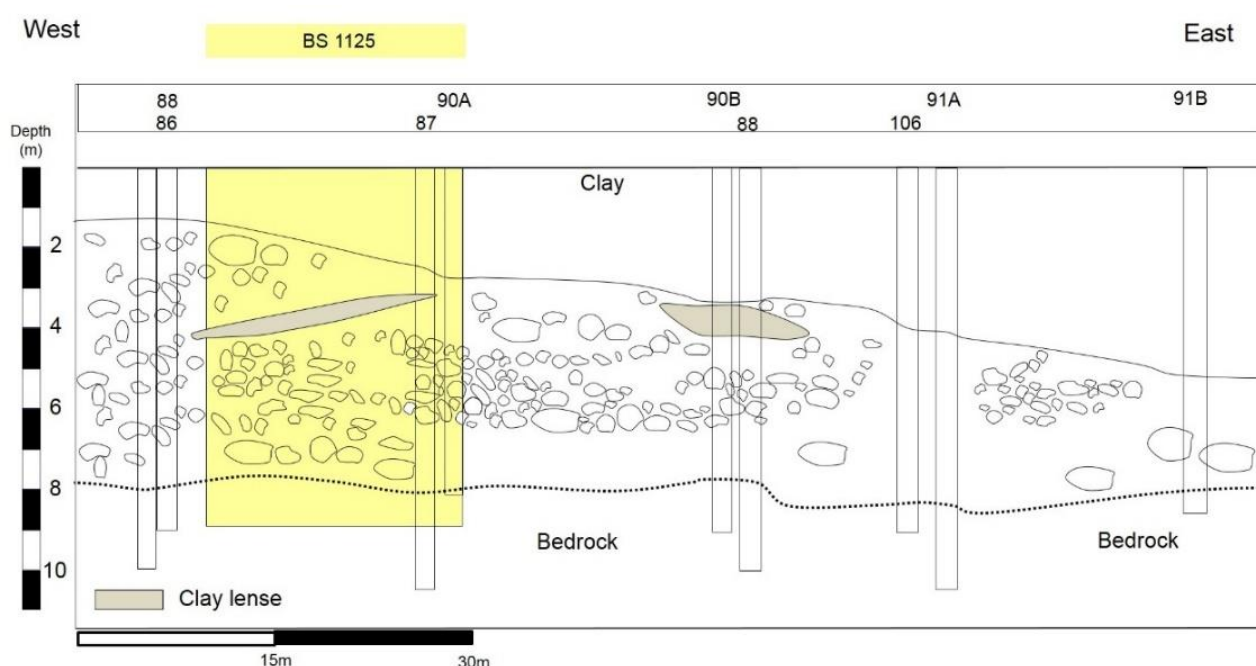


Figure 30: Bulk sample SY-1125 within the context of a geological cross section; Valley-fill sediment is some 7-9m thick. It is composed of a thin clayey cover and a thick gravel layer. The gravel thins to the east. Bulk sampling location was

sited based on the gravel intersection of boreholes 86-87-88-90. The trench was opened between the two borehole rows.



Figure 31: Bulk sample SY-1125 excavated down to bedrock some 8m below surface.

Bulk sample SY-1174:

Subsequent to the intensive exploration work in the Kishon River Mid Reach, including a dense grid of boreholes (SY-65 to SY-109) and two bulk samples (SY-1124 & SY-1125), a new bulk sampling programme was initiated. The bulk sampling positions were sited based on optimal placer formation criteria and to cover two areas of interest within the Kishon River Mid Reach Placer. Two new bulk samples were trenched on July 2015 under the guidance of Dr John Ward and his team of consultants.

Bulk sample SY-1174 was sited at boreholes SY-68C to SY-69A and east of bulk sample SY-1124 (Fig. 32). A total of 533t of gravel was sampled during July 8 - 9, 2015 and transported to the Shefa Yamim plant for storage and further treatment. Sample treatment started during November 2015 and completed in March 2016. In this sample the TMA was represented by all minerals, except diamond, with a total of 862.14 carats of heavy minerals recovered, giving an overall grade (mineral content) of some 162cpht at a bottom screen size of 1mm. This overall grade for bulk sample SY-1174 is lower than the total grade returned from bulk sample SY-1124 (358cpht), a 45% reduction that highlights the nugget effect of heavy mineral distribution in alluvial systems. The nugget effect is particularly relevant to those placers that host semi-mobile trapsites, such as the gravel bars constituting the bulk of the placer deposits in the Kishon Mid Reach.

As in Bulk Sample SY-1124, the Bulk Sample SY-1174 alluvial placer minerals were dominated by the Carmel Sapphire component (43%), followed by the HIM suite minerals Garnet (38%)

and Ilmenite (12%) with the DMCH suite Sapphires running at some 5%. Minor contributions came from the HIM minerals Zircon (0.61%) and Rutile (0.21%) with the DMCH suite rare minerals being Moissanite (0.1%) and Ruby (0.06%). The recovered grade of Carmel Sapphire, the dominant heavy mineral, was some 70 cpht with one substantial stone of 19.55cts. This is some 28% of the 248cpht returned for the Carmel Sapphire component of SY-1124, which also yielded two large stones (23.4ct and 12.22ct). In contrast, the Sapphire grade in SY-1174 of about 8cpht is nearly 30% higher than the 6cpht recovered in SY-1124 but with no medium-sized nor coarse-grained stones found. These results further substantiate the nugget effect related to trap site development in alluvial systems such as those found in the Mid Reach of the Kishon Valley.

In SY-1174 (Figures 32, 33 & 34), the bulk of the heavy minerals recovered (90%) lie in the 0.01 - 0.65 carat range, with some 5% in the 0.66 – 2.5 carat range and a further 5% larger than 2.5 carats. SY-1174 is thus the second bulk sample completed in the exploration exercise to determine a resource estimate of the multi-commodity, Kishon Mid-Reach alluvial placer.

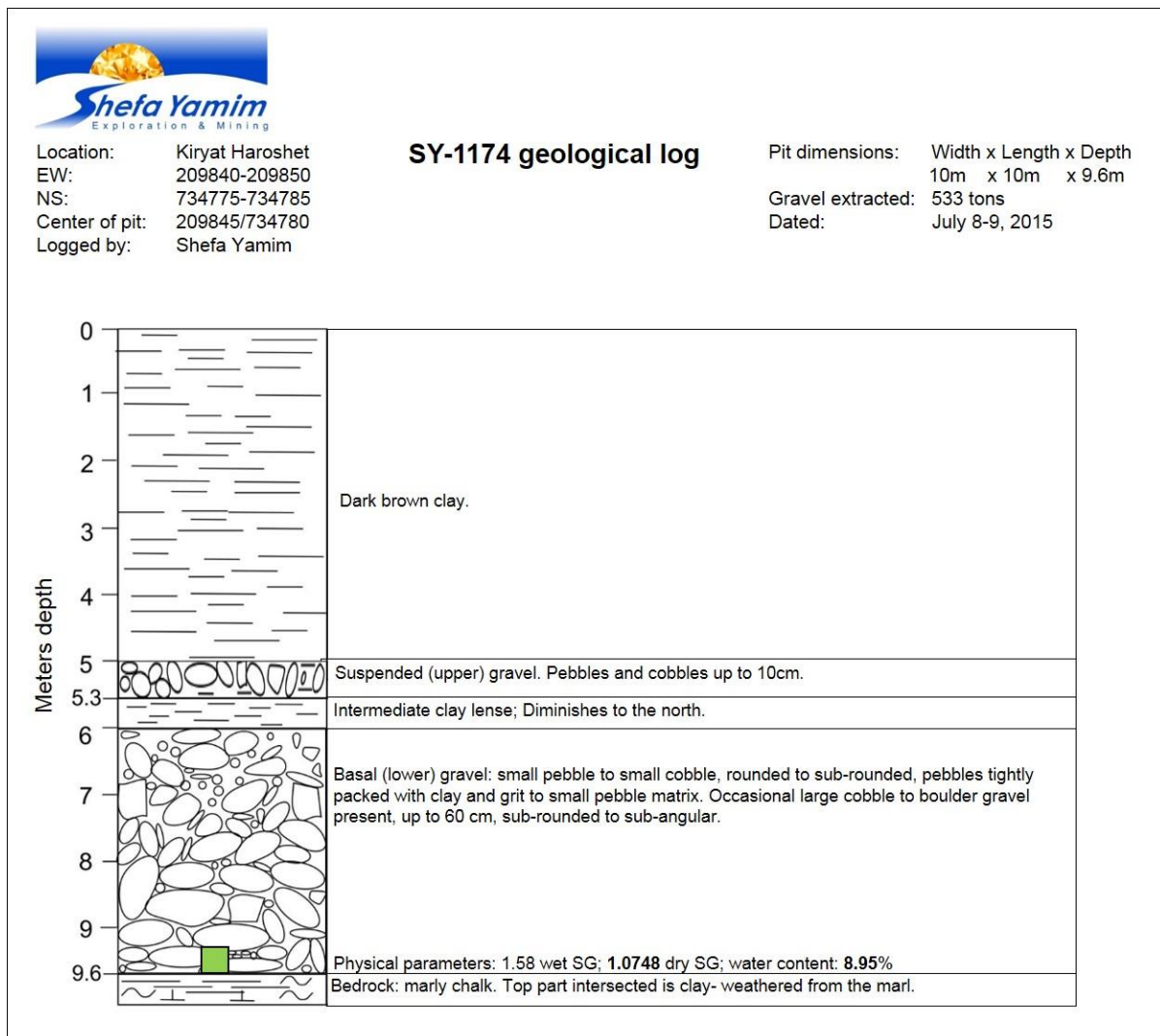


Figure 32: Preliminary trench wall stratigraphic sketch of bulk sampling SY-1174. Green box indicates the specific gravity field test location.



Figure 33: Field photos of bulk sample SY-1174

Bulk sample SY-1175:

As part of the new bulk sampling programme planned according to the recommendations of the geological consultants, bulk sample SY-1175 was planned near boreholes SY-69B to SY-69C and east of bulk sampling SY-1174 (Fig. 33). A total of 533t of gravel was sampled during July 8 - 9, 2015 and transported to the Shefa Yamim plant for storage and further treatment. Treatment of sample SY-1175 started during March 2016 and finished May 2016. A similar stratigraphy to that of sample SY-1174 was recorded at sample SY-1175, but it also had an interbedded clay layer (Figs. 34, 35, & 36).

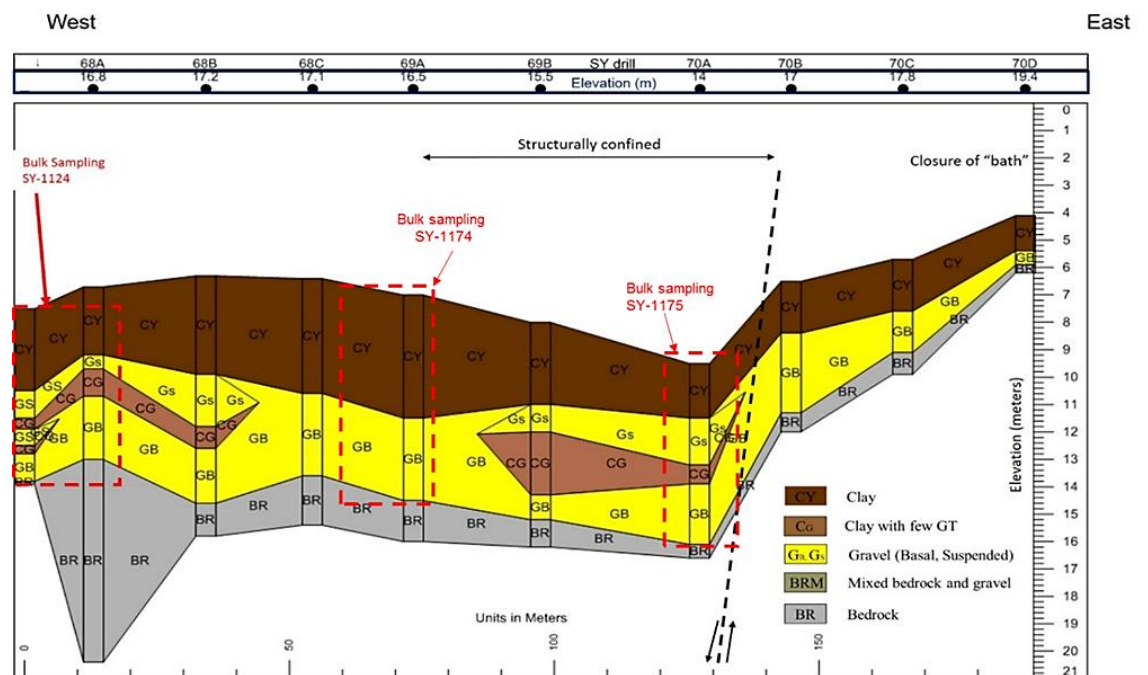
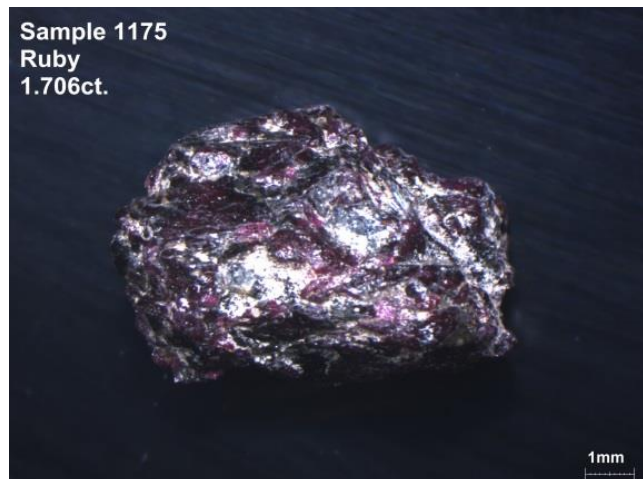


Figure 34: Cross section including SY-1124, 1174, 1175 positions. Note the assumed normal fault adjacent to SY-1175. A different (more cohesive) bedrock seen in the trench may relate to a step/lateral change in lithology.

The results of the third bulk sample, BS-1175, which yielded 539 tons of basal gravels, are summarised here. The TMA was represented by all minerals, except diamond, with a total of 283.12 carats (cts) of heavy minerals recovered, giving an overall grade (mineral content) of some 52.5 carats per one hundred tonnes (cpht) at a bottom screen size of 1mm. This



overall grade for BS-1175 is lower than the total grades returned from the first bulk sample, BS-1124 (358 cpht) and the second bulk sample, BS-1174 (162 cpht), highlighting the nugget effect of heavy mineral distribution in alluvial systems. The nugget effect is particularly relevant in those placers that host semi-mobile trapsites, such as the gravel bars constituting the bulk of the placer deposits in the Kishon Mid Reach.

As with Bulk Samples BS-1124 and BS-1174, the Carmel sapphires are the dominant alluvial placer mineral species at some 58% in BS-1175, followed the HIM suite minerals garnet (31%) and ilmenite (6%) with the conventional sapphires running at some 2%. Minor contributions came from the HIM minerals zircon (0.1%) and rutile (0.1%) with the DMCH suite rare minerals being moissanite (0.1%) and ruby (0.8%). Significantly, BS-1175 has yielded the largest ruby, at 1.7 carats, recovered to date in Shefa Yamim's exploration campaign. Another rare gem mineral that was found in BS-1175 is possibly Hibonite (2%), the confirmation of which will be provided on completion of the analyses by Prof. Bill Griffin and his research team in Australia.

The recovered grade of Carmel sapphire, the dominant heavy mineral in BS-1175, was some 31 cpht which was 56% lower than BS-1174 results and 87% below the BS-1124 results, respectively. The conventional sapphire grade was just under 1 cpht which is also lower than the equivalent grades in BS-1124 (6 cpht) and BS-1174 (8 cpht). These results further substantiate the nugget effect related to trapsite development in alluvial systems such as those found in the Mid Reach of the Kishon Valley. Thus, the decrease in overall grade from west (left side) to east (right side) of the palaeo-Kishon is, at this stage, attributed to the decreasing influence of coarse gravels introduced by steep tributary fans off Mt. Carmel across the palaeo-Kishon Valley. These coarse gravels would have promoted bar formation and thus semi-mobile trapsite development in the palaeo-Kishon River.

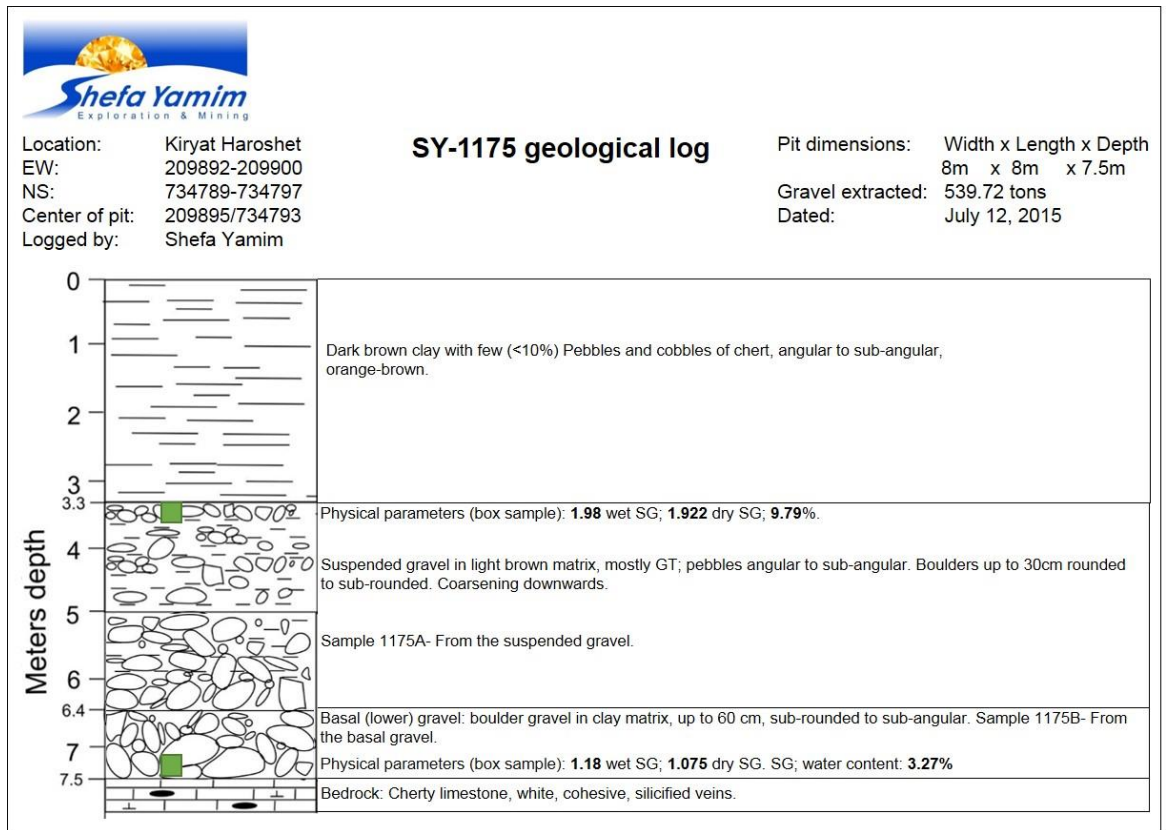


Figure 35: Trench wall stratigraphy of bulk sample SY-1175. Green boxes indicate specific gravity field test locations.

In BS-1175, the majority of the heavy minerals recovered (69 %) lie in the 0.01 to 0.65 carat range, with some 30% in the 0.66 – 2.5 carat range and a further 1% greater than 2.5 carats. This is a coarser TMA distribution than both BS-1124 and BS-1174, pointing to additional winnowing, rather than trapping, effects in the basal gravels of BS-1175.

BS-1175 is the third bulk sample completed in the exploration program to determine a resource estimate of the multi-commodity, Kishon Mid-Reach alluvial placer. The difference in grades recovered between the first three major bulk samples, notably the overall 358 cpht for BS-1124, 162 cpht for BS-1174 and 52.5 cpht for BS-1175, respectively, as well as the grades pertinent to the individual mineral species comprising the DMCH suite and the HIM suite at these localities, confirm the nugget effect expected in alluvial placers such as the one developed in the Mid Reach of the Kishon Valley.



Figure 36: Field photos of bulk sampling SY-1175

Bulk sample SY-1213 – September 2016:

GENERAL BACKGROUND: The multi-commodity alluvial placer identified by Shefa Yamim in the basal gravels of an ancient palaeo-Kishon River preserved in the Mid Reach between Tel Kashish and Jalame Junction is currently being tested for mineral content (grade and stone size) in a bulk sampling campaign. The Target Mineral Assemblage (TMA), comprising a gem (DMCH) suite of diamond, moissanite, gem corundum varieties of sapphire, Carmel sapphire and ruby, as well as hibonite, together with a heavy industrial mineral (HIM) suite of garnet, ilmenite, zircon and rutile has already been proven in earlier exploration programs conducted by Shefa Yamim, including the bulk samples BS-1124, BS-1125, BS-1174 and BS-1175. The aim of the bulk samples is to determine the range in mineral content (grade and stone size) of the TMA in the palaeo-Kishon gravels.

KISHON MID REACH ZONE 1 BULK SAMPLING PROGRAM: The bulk samples BS-1124, BS-1125, BS-1174, BS-1175 and BS-1213 are spaced across the palaeo-valley to form part of a sample grid to systematically investigate the heavy mineral content of the palaeo-Kishon River basal gravels (placer target). These bulk sample trenches, some 8 - 20m long by 4 - 8m wide, are excavated down to the bedrock (footwall) contact through a total sediment thickness of some 6 – 8m, of which the basal target gravels comprise some 1 – 4m. Approximately 350 to 550 tonnes of coarse basal gravels are removed from the field site to the dedicated treatment

facility operated by Shefa Yamim in Akko. There the bulk sample is scrubbed, screened (bottom screen size is 1mm), jigged to concentrate the heavy minerals which are then hand-picked in a secure laboratory by trained personnel. All sample concentrates are kept for audit purposes and the basal gravel tailings are returned to the original bulk sample trench where, together with the overburden fines, the excavations are back-filled and rehabilitated.

BULK SAMPLE 1213 – EXPLORATION RESULTS: The results of bulk sample, BS-1213, which yielded 347 tonnes of basal gravels, are summarised here. The TMA was represented by all minerals, except diamond, with a total of 332.07 carats (cts) of heavy minerals recovered, giving an overall grade (mineral content) of some 95.6 carats per one hundred tonnes (cpht) at a bottom screen size of 1mm. This overall grade for BS-1213 lies within the range recorded in the previous bulk samples, namely: BS-1124 (358 cpht), BS-1125 (222 cpht), BS-1174 (162 cpht) and BS-1175 (52 cpht), highlighting the nugget effect of heavy mineral distribution expected in alluvial systems, such as the semi-mobile trapsites formed by the ancient gravel bars in the Kishon Mid-Reach placer.

In contrast to the earlier bulk samples (BS-1124, BS-1125, BS-1174 and BS-1175) where Carmel sapphire was the dominant gem mineral, BS-1213 had a higher sapphire content (7.2%) than the Carmel sapphire (6.3%). The other gem minerals, moissanite (0.02%), ruby (trace only) and hibonite (0.09%), were minor constituents in relation to the two sapphire varieties. Overall, the gem (DMCH) suite comprised some 13.7% and the heavy industrial mineral (HIM) suite some 86.3% of the TMA. The HIM suite was dominated by garnet (54.9%) and Ilmenite (30.4%) with zircon (0.81%) and rutile (0.18%) only minor components. In BS-1213, the recovered grade of sapphire (6.9 cpht) was slightly higher than that of the Carmel sapphire (6.05 cpht), the latter of which has been the dominant gem mineral in the previous bulk samples. The sapphires were also the largest stones recovered, with 2 stones weighing 4.8 cts, whereas the largest Carmel sapphire was a 1.8 ct stone. The majority of the heavy minerals recovered (94 %) lie in the 0.01 to 0.65 carat range, with the remaining 6% in the 0.66 – 2.49 carat range.

BS-1213 is the fifth bulk sample completed in the exploration program to determine a resource estimate of the multi-commodity (TMA), Kishon Mid-Reach alluvial placer. To date, the difference in grades recovered between these five bulk samples confirms the nugget effect expected in alluvial placers such as the one developed in the Mid-Reach of the Kishon Valley.

Bulk sample SY-1210 – September 2016:

The results of bulk sample, BS-1210, which yielded 551 tonnes of basal gravels, are summarised here. The TMA was represented by all minerals, except diamond, with a total of 156.6 carats (cts) of heavy minerals recovered, giving an overall grade (mineral content) of some 28.4 carats per one hundred tonnes (cpht) at a bottom screen size of 1mm. This overall grade for BS-1210 lies below the range recorded in the previous bulk samples, namely: BS-

1124 (358 cpht), BS-1125 (222 cpht), BS-1174 (162 cpht), BS-1175 (52 cpht) and BS-1213 (96 cpht), highlighting the nugget effect of heavy mineral distribution expected in alluvial systems, such as the semi-mobile trapsites formed by the ancient gravel bars in the Kishon Mid-Reach placer.

In keeping with the earlier bulk samples of BS-1124, BS-1125, BS-1174 and BS-1175, Carmel sapphire was also the dominant gem mineral in BS-1210 (15.8%). The exception to date being BS-1213 where sapphire was the dominant gem mineral. In BS-1210, the sapphire content was some 3.8% (second-highest gem in abundance), followed by the minor constituents of ruby (0.05%), hibonite (0.03%) and moissanite (0.03%). Overall, the gem (DMCH) suite comprised some 19.8% and the heavy industrial mineral (HIM) suite some 80.2% of the TMA. The HIM suite was dominated by garnet (70.7%) and Ilmenite (8.6%) with zircon (0.7%) and rutile (0.2%) only minor components.

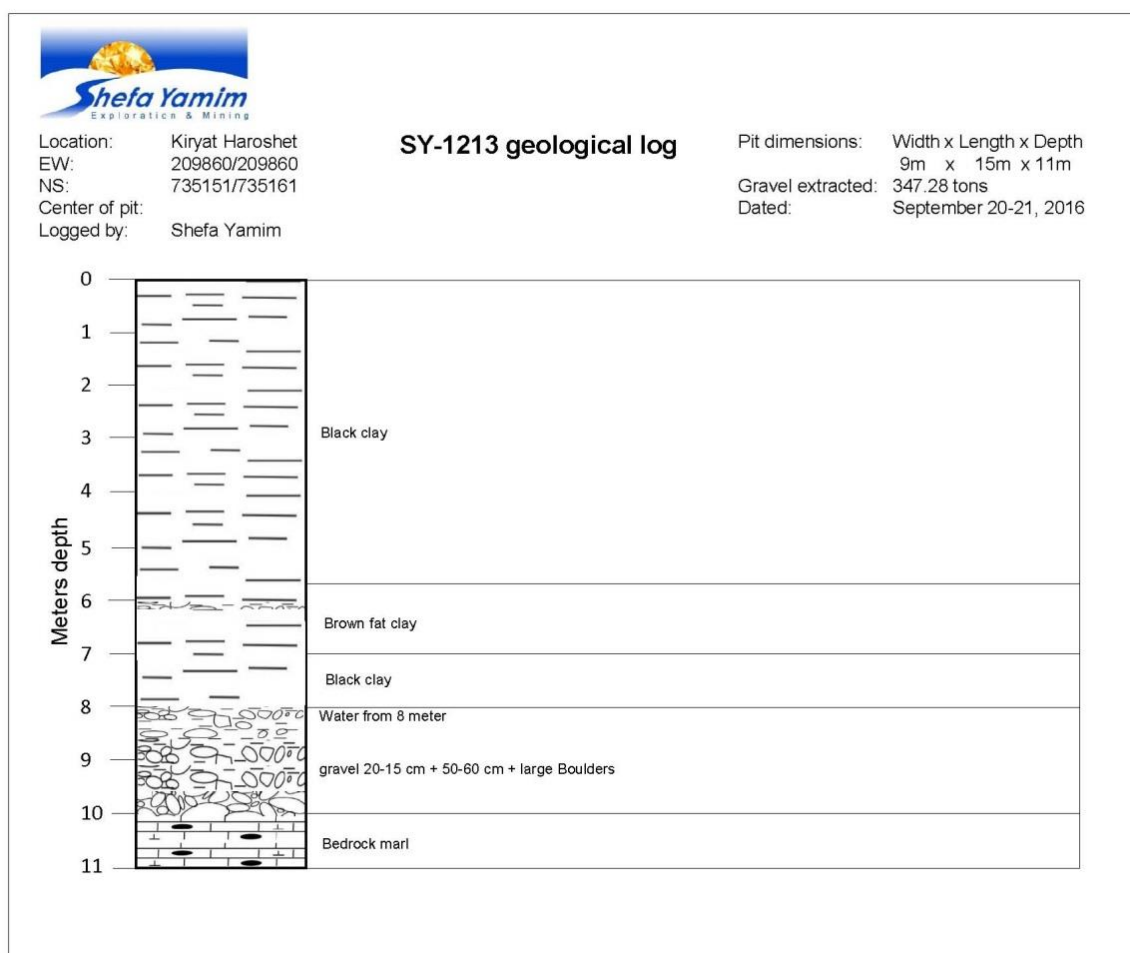


Figure 37a: Preliminary trench wall stratigraphic sketch of bulk sampling SY-1213.

In BS-1210, the largest minerals recovered where in the DMCH suite, with Carmel Sapphires reporting in the 1.2 cts/stone range and sapphire in the 1 ct/stone range.

The majority of the heavy minerals recovered (94 %) lie in the 0.01 to 0.65 carat range, with the remaining 6% in the 0.66 – 1.39 carat range.

BS-1210 is the sixth bulk sample completed in the exploration program to determine a resource estimate of the multi-commodity (TMA), Kishon Mid-Reach alluvial placer. To date, the difference in grades recovered between these six bulk samples confirms the nugget effect expected in alluvial placers such as the one developed in the Mid-Reach of the Kishon Valley.

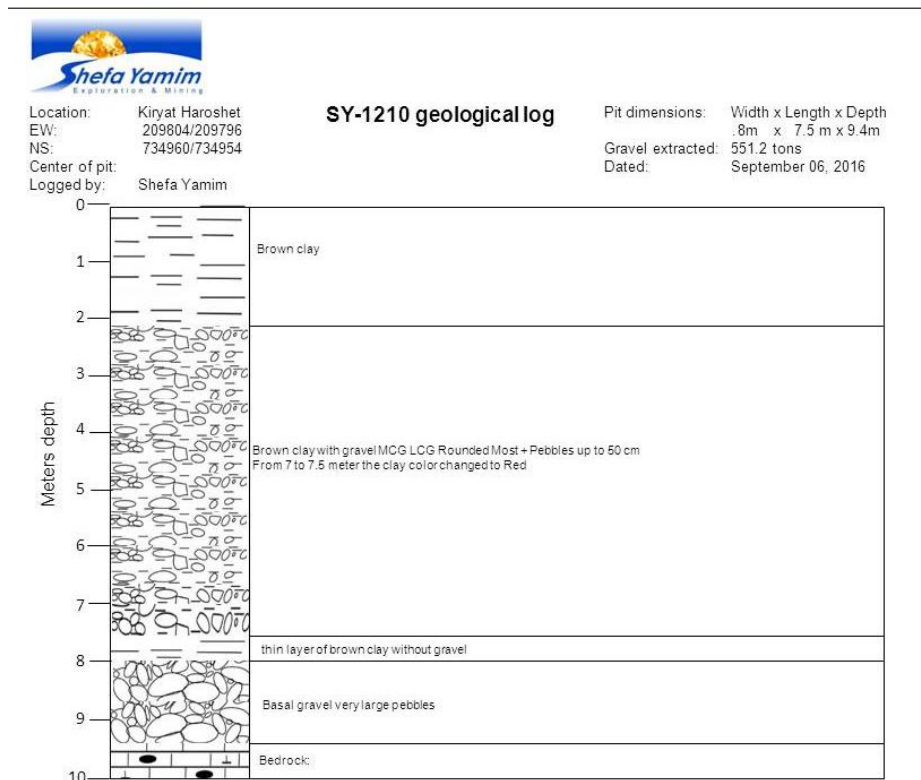


Figure 37b: Preliminary trench wall stratigraphic sketch of bulk sampling SY-1210.

KISHON MID REACH ZONE 1 BULK SAMPLING PROGRAM - September 2016:

GENERAL BACKGROUND:

The bulk samples BS-1124, BS-1125, BS-1174, BS-1175, BS-1213, BS-1210 and BS-1176 are spaced across the palaeo-valley to form part of a sample grid to systematically investigate the heavy mineral content of the palaeo-Kishon River basal gravels (placer target; Figure 1). Significantly, the completion of BS-1176 provides the first cross-sectional bulk sample results across the palaeo-Kishon course (Figure 1) with the bulk samples BS-1124 (western side), BS-1174 (central west), BS-1175 (central east) and BS-1176 (eastern side).

These bulk sample trenches, some 8 - 20m long by 4 - 8m wide, are excavated down to the bedrock (footwall) contact through a total sediment thickness of some 6 – 8m, of which the basal target gravels comprise some 1 – 4m. Approximately 350 to 550 tonnes of coarse basal gravels are removed from the field site to the dedicated treatment facility operated by Shefa Yamim in Akko. There the bulk sample is scrubbed, screened (bottom screen size is mm), jigged to concentrate the heavy minerals which are then hand-picked in a secure laboratory by trained personnel. All sample concentrates are kept for audit purposes and the basal gravel

tailings are returned to the original bulk sample trench where, together with the overburden fines, the excavations are back-filled and rehabilitated.

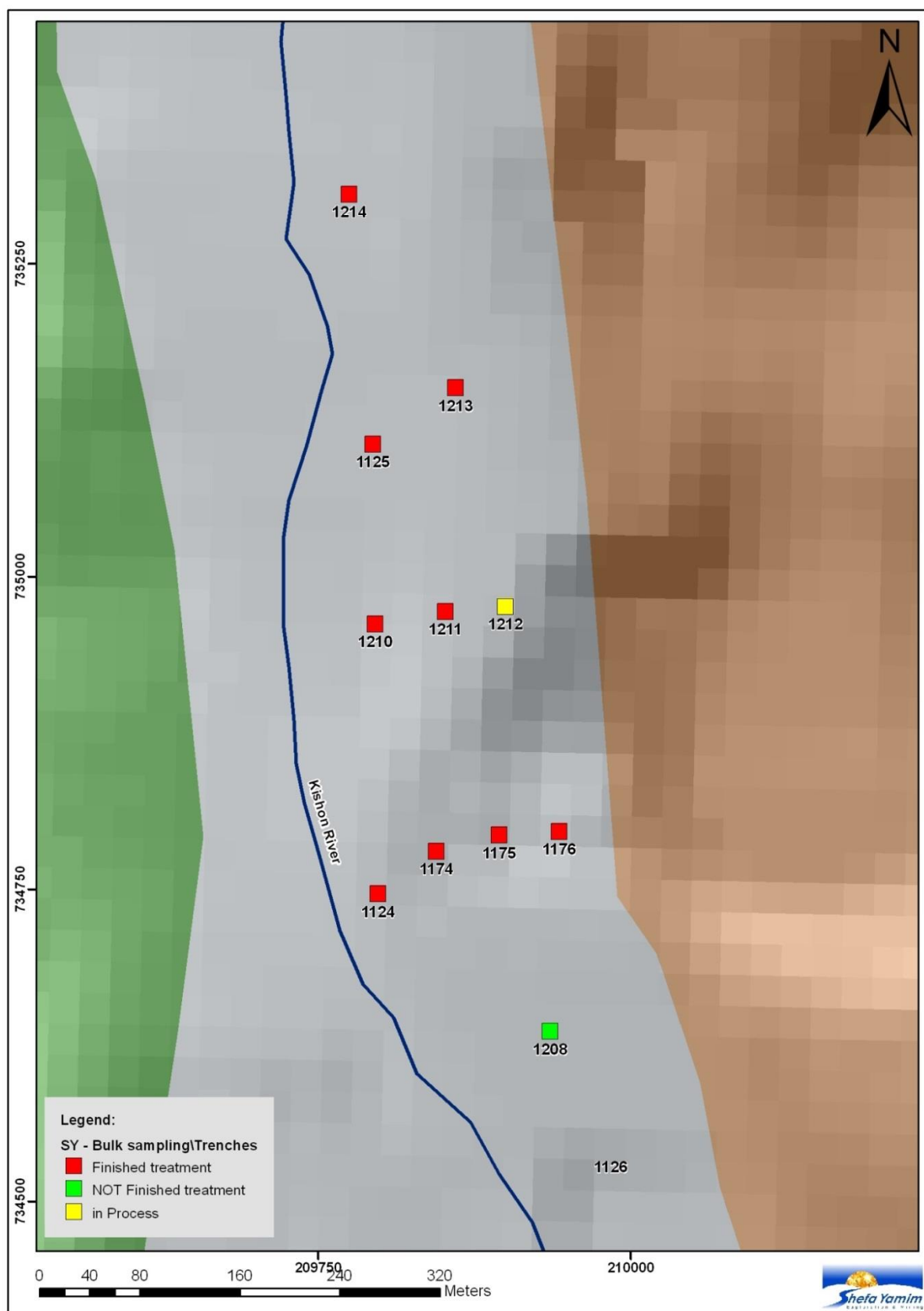


FIGURE 38a: The position of BS-1176, as well as the other six bulk samples, completed in the Kishon Mid Reach Zone 1. Note the cross-section aspect across the palaeo-Kishon course provided by bulk samples BS-1124, BS-1174, BS-1175 and BS-1176.

BULK SAMPLE 1176 – EXPLORATION RESULTS:

The results of bulk sample, BS-1176, which yielded 509 tonnes of basal gravels, are summarised here. The TMA was represented by all minerals, except diamond and zircon, with a total of 45.17 carats (cts) of heavy minerals recovered, giving an overall grade (mineral content) of some 8.88 carats per one hundred tonnes (cpht) at a bottom screen size of 1mm. This overall grade of 8.88 cpht for BS-1176 is the lowest grade recorded in the Kishon Mid Reach Zone 1 sampling campaign to date. However, this grade drop is to be expected as the TMA grade drops from west to east across the palaeo-Kishon course in response to the semi-mobile trapsites offered by coarse oversize clasts from the tributary fan inputs off Mt Carmel. The bulk sample results support this view in that the TMA grades drop from BS-1124 (358 cpht; western side closest to fan input) through BS-1174 (162 cpht) and BS-1175 (52 cpht) to the approximate 9 cpht of BS-1176 on the eastern side (Figure 1). These results also highlight the nugget effect on heavy mineral concentration to be expected in the alluvial Kishon Mid Reach Placer.

In keeping with the earlier bulk samples (BS-1124, BS-1125, BS-1174, BS-1175 and BS-1210), with the exception of BS-1213, Carmel sapphire was the dominant gem mineral in BS-1176 (62.6%), followed by sapphire (0.7%), moissanite (0.4%), hibonite (0.1%) and ruby (0.02%). The TMA in BS-1176 was thus dominated by the DMC gem suite (64%) with the remaining 36% comprising the HIM suite of garnet (33%), Ilmenite (3%) and rutile (0.3%).

The largest stone recovered from BS-1176 was a Carmel sapphire weighing some 1.49 cts. The majority of the heavy minerals recovered in BS-1176 (80 %) lie in the 0.01 to 0.65 carat range, with the remaining 20%% in the 0.66 – 1.79 carat range.

BS-1176 is the seventh bulk sample completed in the exploration program to determine a resource estimate of the multi-commodity (TMA), Kishon Mid-Reach alluvial placer. To date, the difference in grades recovered between these seven bulk samples confirms the variability in semi-mobile trapsite development and the associated nugget effect expected in alluvial placers such as the one developed in the Mid-Reach of the Kishon Valley.

Bulk sample SY-1214 – September 2016:

BULK SAMPLE 1214 – EXPLORATION RESULTS:

The results of bulk sample, BS-1214, which yielded 530 tonnes of basal gravels, are summarised here. The TMA was represented by all minerals, except diamond, with a total of 217.66 carats (cts) of heavy minerals recovered, giving an overall grade (mineral content) of some 41.09 carats per one hundred tonnes (cpht) at a bottom screen size of 1mm. This overall grade of 41.09 cpht for BS-1214 falls within the range of total grades returned to date in the Kishon Mid Reach Zone 1 sampling campaign (from 8.88 cpht for BS-1176 to 358 cpht for BS-1124). This BS-1214 result is the most distal bulk sample taken in Zone 1 of Kishon Mid Reach

Placer to date and it further confirms the nugget effect in heavy mineral concentration expected in this alluvial deposit.

In keeping with the majority of the earlier bulk samples (BS-1124, BS-1125, BS-1174, BS-1175, BS-1210 and BS-1176), with the exception of BS-1213, Carmel sapphire was the dominant gem mineral in BS-1214 (19.5%), followed by sapphire (6.8%), hibonite (2.3%), ruby (0.3%) and moissanite (0.05%). The TMA in BS-1214 was however dominated by the HIM suite (71%), comprising garnet (50%), Ilmenite (19.4%), zircon (1.2%) and rutile (0.15%).

The largest stone recovered from BS-1214 was a hibonite gem weighing some 2.83 cts that has been submitted to Prof. Bill Griffin and his research team at Macquarie University, Australia, for detailed analysis.



The size range distribution of the TMA recovered from BS-1214 is summarised below in Table 5a. Note that the majority of the heavy minerals (87.8%) lie in the Extra Fines range (0.01 to 0.65 carats).

TABLE 6: Size Range Distribution of the TMA recovered from BS-1214.

Extra Fines (0.01 to 0.65 carats)	Fines (0.66 to 1.19 carats)	Mids (1.2 to 2.49 carats)	Coarse (2.5 cts and more)
87.8%	5.3%	2.6%	1.3%

BS-1214 is the eighth bulk sample completed in the exploration program to determine a resource estimate of the multi-commodity (TMA), Kishon Mid Reach alluvial placer. To date, the difference in grades recovered between these eight bulk samples confirms the variability in semi-mobile trap site development and the associated nugget effect expected in alluvial placers such as the one developed in the Mid Reach of the Kishon Valley.

BULK SAMPLE 1211 – EXPLORATION RESULTS:

The results of bulk sample, BS-1211, which yielded 518 tonnes of basal gravels, are summarised here. The TMA was represented by all minerals, except diamond and hibonite, with a total of 240.73 carats (cts) of heavy minerals recovered, giving an overall grade (mineral content) of some 46.47 carats per one hundred tonnes (cpht) at a bottom screen size of 1mm. This overall grade of 46.47 cpht for BS-1211 falls within the range of total grades returned to date in the Kishon Mid Reach Zone 1 sampling campaign (from 8.88 cpht for BS-1176 to 358 cpht for BS-1124). This BS-1211 location lies approximately in the central area of Zone 1 in the Kishon Mid Reach Placer and it further confirms the nugget effect in heavy mineral concentration expected in this alluvial deposit.

In keeping with the majority of the earlier bulk samples (BS-1124, BS-1125, BS-1174, BS-1175, BS-1210, BS-1176 and BS-1214), with the exception of BS-1213, Carmel sapphire was the

dominant gem mineral in BS-1211 (15.7%), followed by sapphire (11.0%), moissanite (0.04%) and ruby (0.02%). As with most other bulk sample results in Zone 1 to date, the TMA in BS-1211 was dominated by the HIM suite (73%), comprising garnet (52.2%), Ilmenite (19.8%), zircon (0.99%) and rutile (0.21%).

The largest gemstone recovered from BS-1211 was a blue sapphire weighing some 2.60 cts and the largest HIM mineral was a 3.36 ct garnet.

The size range distribution of the TMA recovered from BS-1211 is summarised below in Table 7. Note that the majority of the heavy minerals (85.5%) lies in the Extra Fines range (0.01 to 0.65 carats).

TABLE 7: Size Range Distribution of the TMA recovered from BS-1211.

Size Range Distribution of the TMA recovered from BS-1211. Extra Fines (0.01 to 0.65 carats)	Fines (0.66 to 1.19 carats)	Mids (1.2 to 2.49 carats)	Coarse (2.5 cts and more)
85.5%	6.2%	5.8%	2.5%

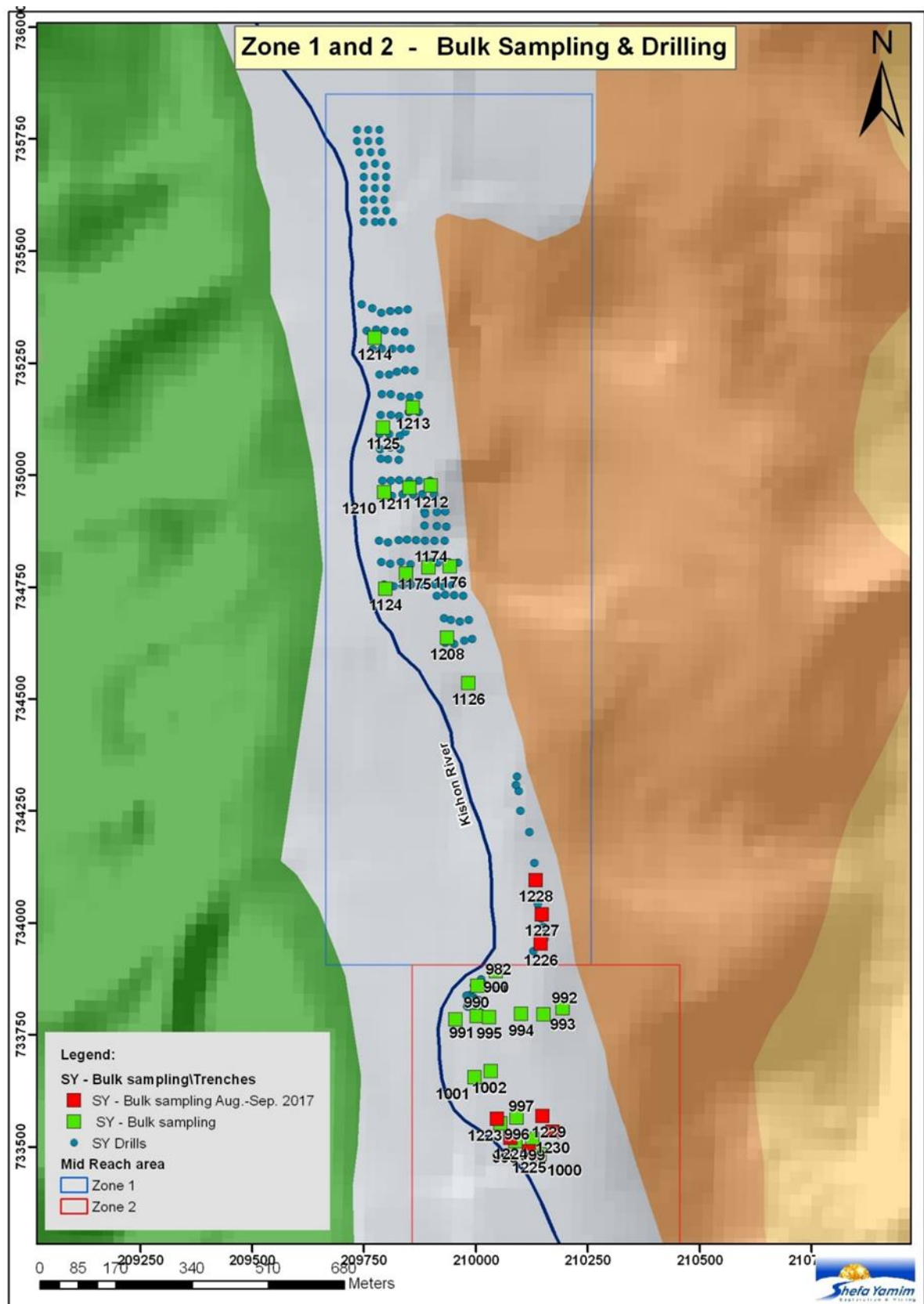


FIGURE 38b: The position of new 8 bulk samples in the Kishon Mid Reach Zone 1.

New Bulk sampling program - Kishon Mid Reach Zone 1 and Zone 2: August-September 2017:

During August-September 2017 the total of 8 new bulk sampling done (BS-1223 till BS-1230), see Figure 38b

New Bulk sampling program - Kishon Mid Reach Zone 1: September 2017:

During September 2017, 3 new bulk samples were done (BS-1226, 1227 and 1228), see Table 7. These 3 new bulk samples are the last bulk samples planned for Zone 1. Pre-Feasibility Study for Zone 1 Kishon Mid-Reach Placer planned (JAN 2018 – JUN 2018).

Preliminary Logs of 2 New Bulk Sampling in Zone 1:

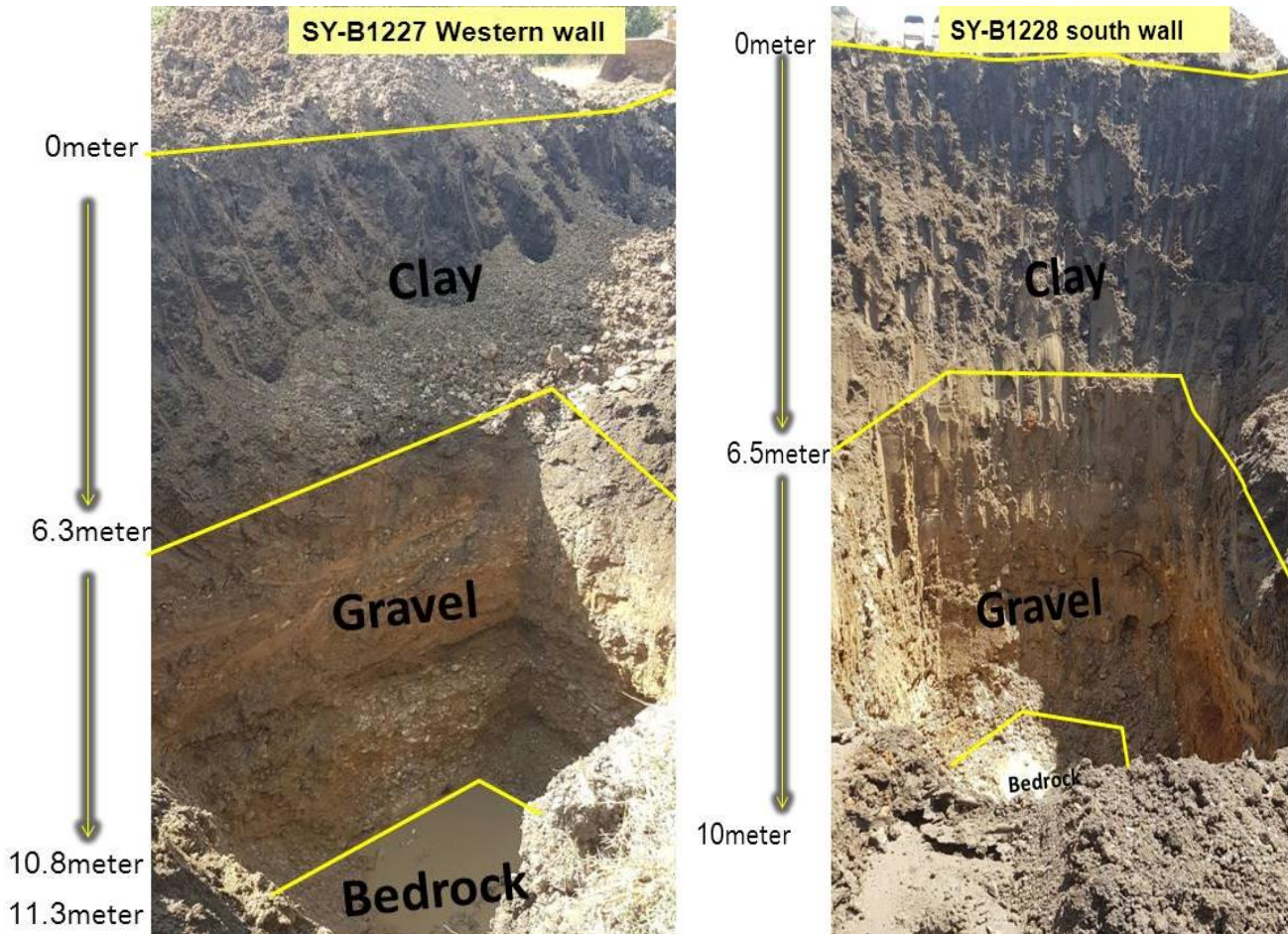


Figure 38c: Preliminary logs of BS 1227 and 1228

New Bulk sampling program -Kishon Mid Reach Zone 2: August 2017:

During August 2017, 3 new bulk samples were excavated (BS-1223, 1224 and 1225). In addition, 2 new bulk samples across the valley and opposite to bulk samples 1224 and 1225 were done, i.e. Bulk samples BS-1229 and BS-1229.

9.6.2.2 Bulk sampling in Zone 2 (Bulk sample in SY-982 area)

This area is currently subjected to extensive exploration due to good TMA recoveries from borehole samples. Sample 982 totalled 400t of TMA-bearing gravel that yielded some 6 carats of moissanite, including a 4.1mm crystal. The complete TMA (DMCH + HIM suites) was recovered excluding diamonds. It should be noted however that a diamond was recovered in borehole SY-18, located approximately 53m northeast of bulk sample 982 at a depth of 4.5m below the surface. Bulk sample 990 (17t) recovered the largest sapphire crystal: 5.72 carat, out of a total of 39.6 carats sapphire from this bulk sample.

Bulk sample 982:

Bulk sample 982 (Figs. 38a, 38b & 38c) was excavated during May 21-23, 2012 in a field near the Kishon River within Zone 2 of Shefa Yamim's Mid Reach exploration target (Figs. 39, 40a & 44).

The 400t sample produced 54.99 carats sapphire, 29.77 carats Carmel Sapphire, 1.97 carats ruby and 5.94 carat moissanite and an appreciable yield of heavy minerals (Fig. 38b).

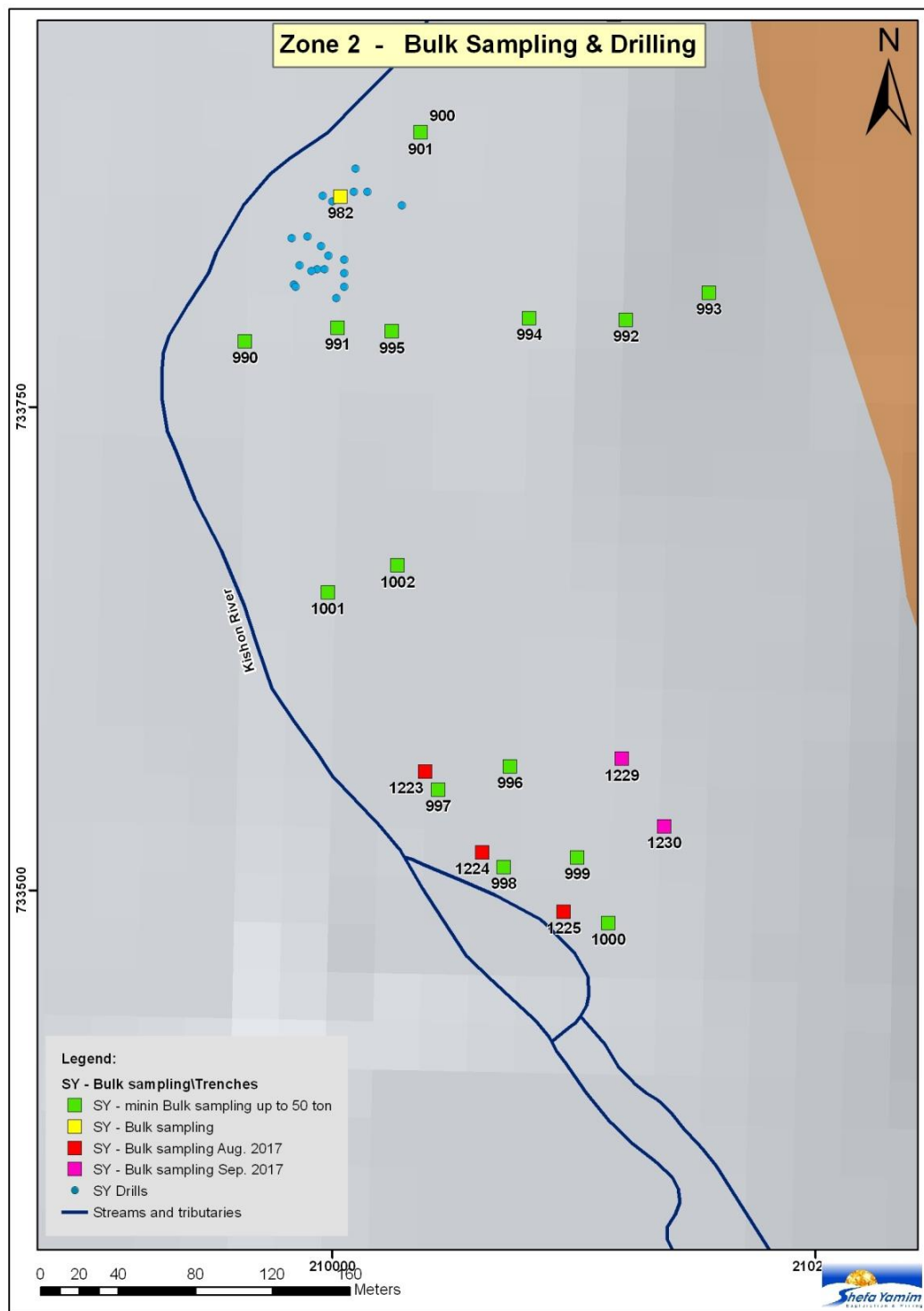


FIGURE 39: The position of new 3 bulk samples in the Kishon Mid Reach Zone 2, Bulk sampling 1223, 1224 and 1225 see red square + the position of the additional 2 new bulk samples across the valley, i.e. bulk samples-1229 and 1230.

Preliminary Logs of New Bulk Samples in Zone 2 (all western wall)



Figure 39a: BS-1223

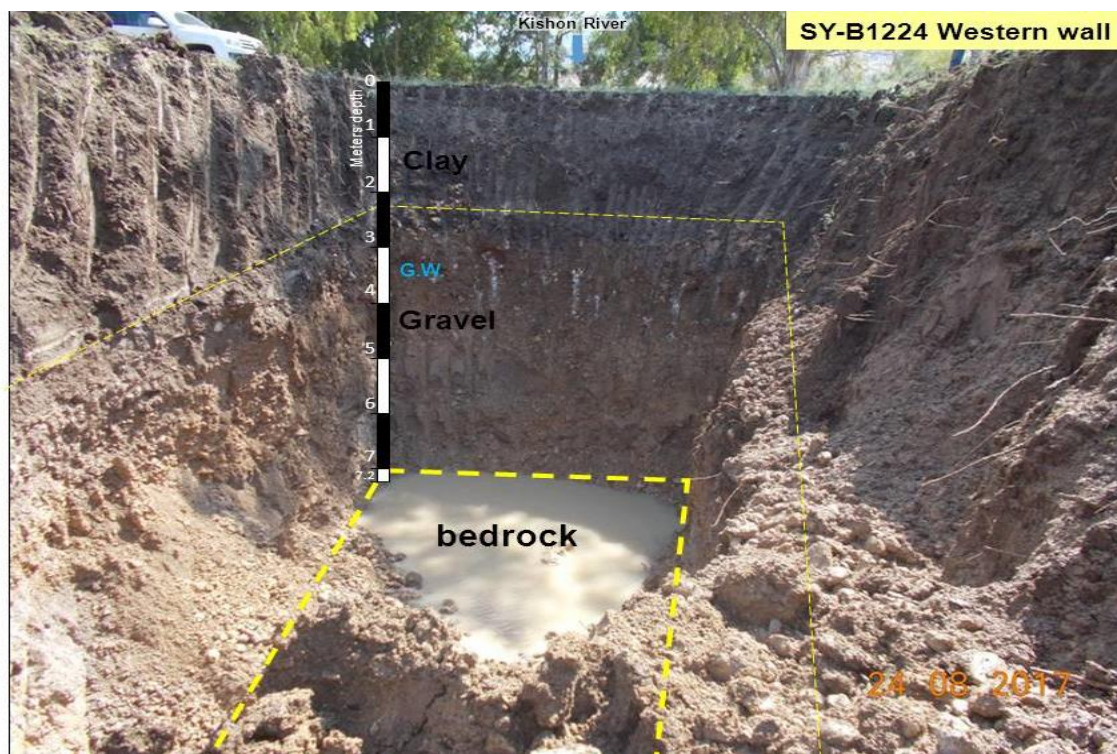


Figure 39b: BS-1224

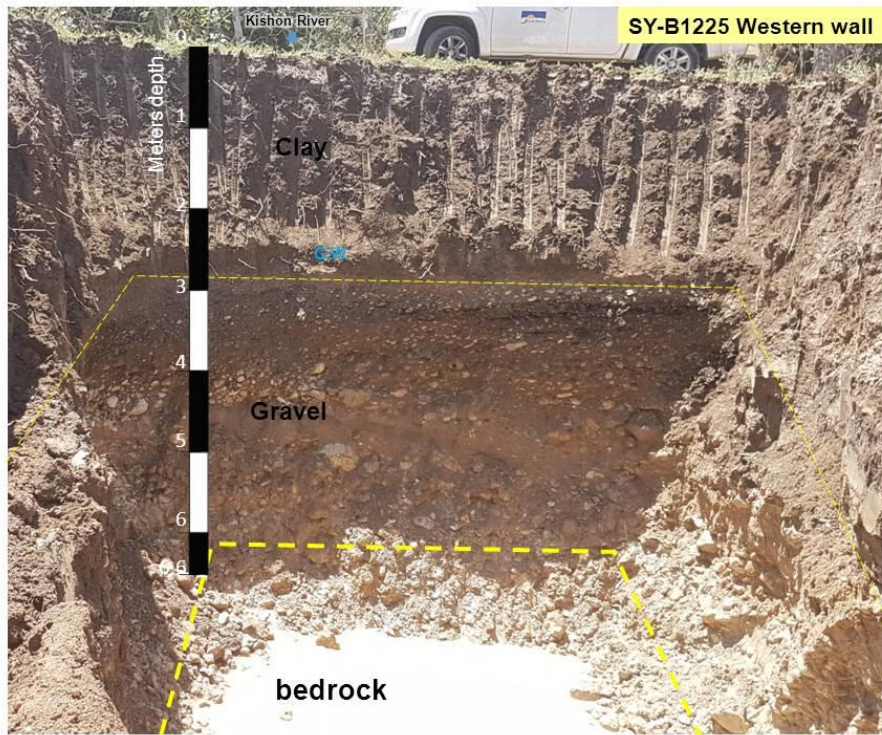


Figure 39c: BS-1225

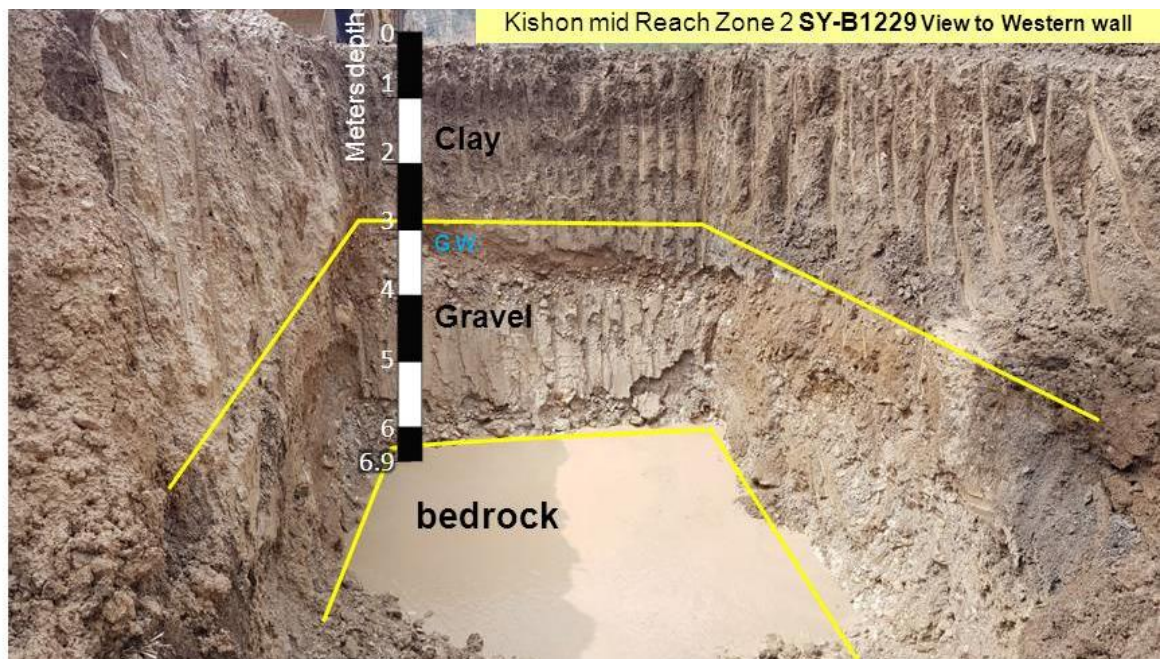


Figure 39d. BS-1129

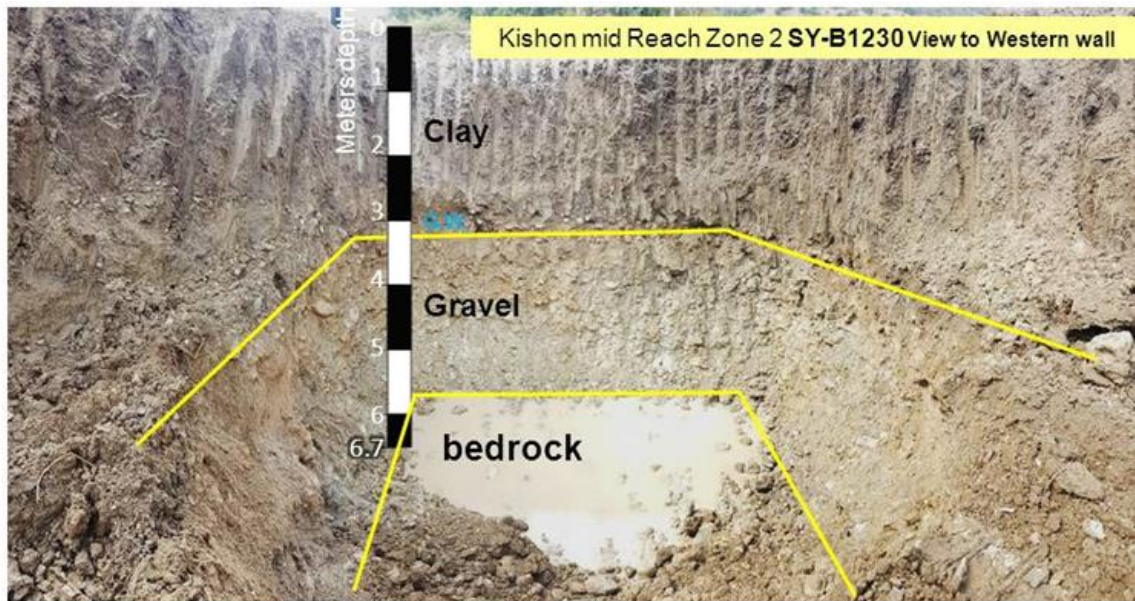


Figure 39e: BS-1230

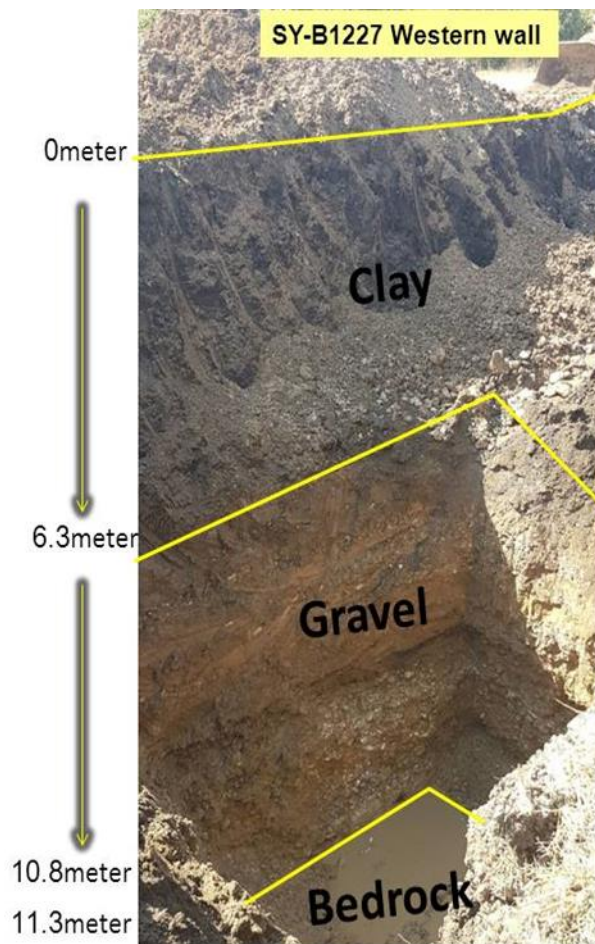


Figure 39f: BS-1227

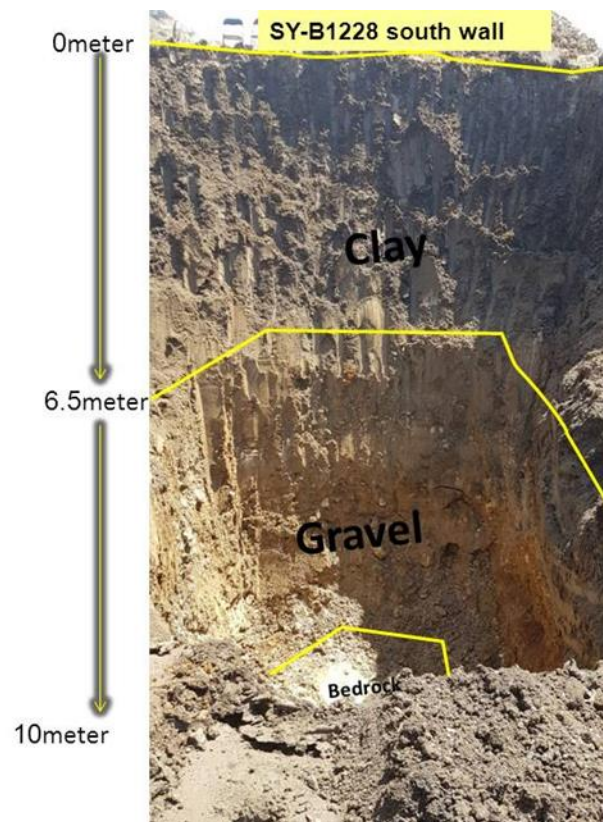


Figure 39g: BS-1228

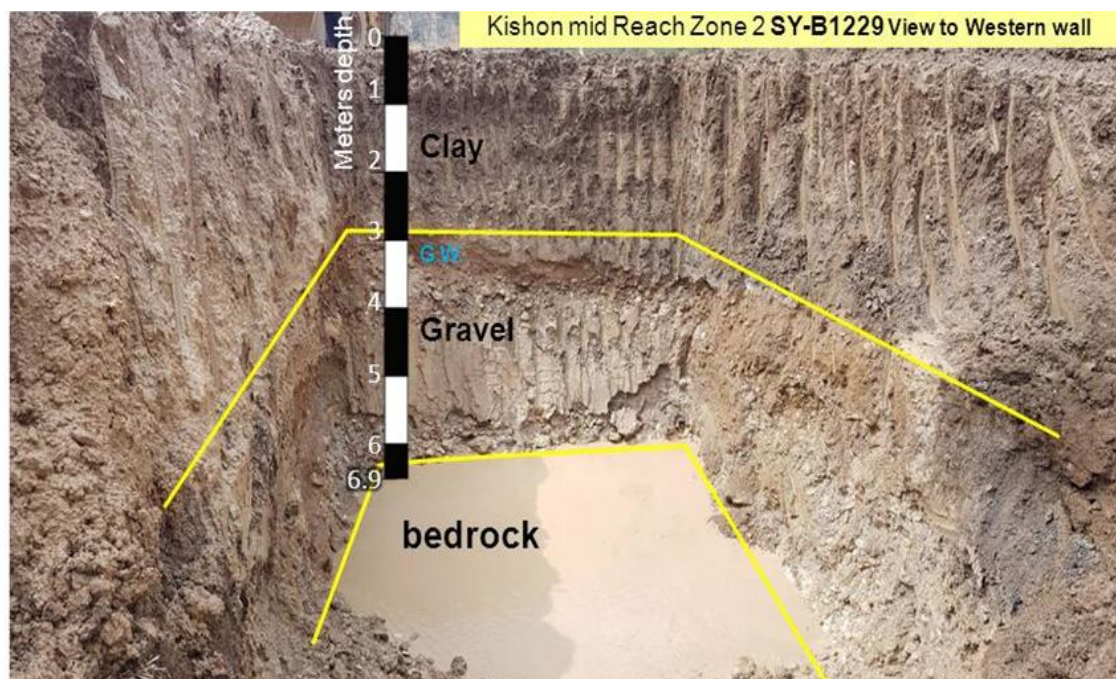


Figure 39h: BS-1229

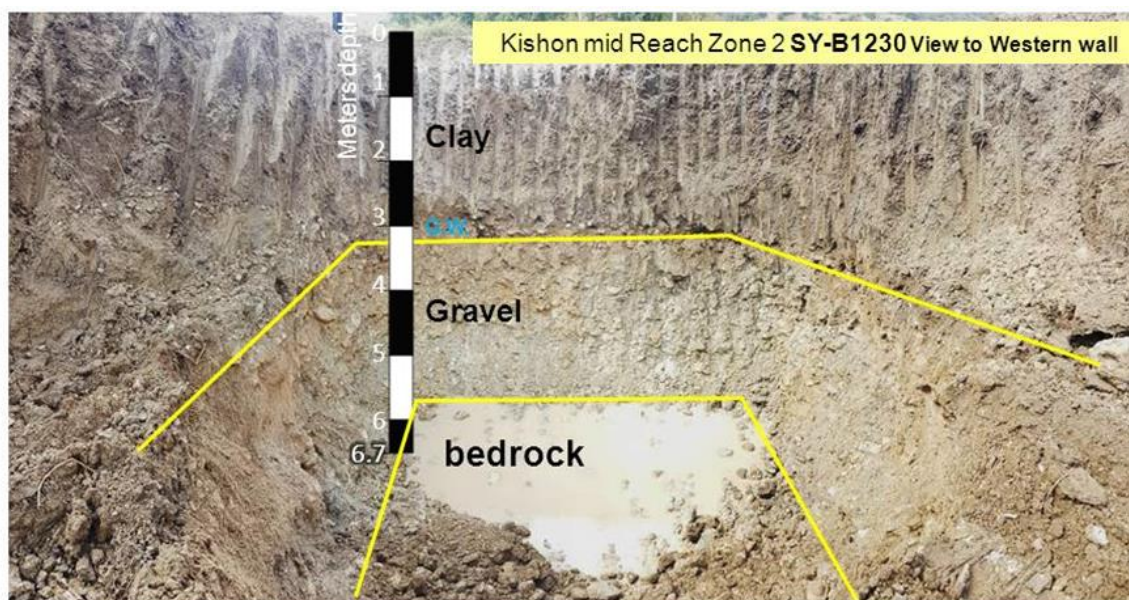


Figure 39i: BS-1230



CO-ORD	LOCATION:	Kiryat Haroshet	SAMPLE: SY-B982	G.W.TABLE:	Not intersected
	EW:	209991		PIT DIMENSIONS:	27.6m x 4.5m x 7m
	NS:	733853			Length x Width x Depth
	LOGGED BY:	Dr. M.Fedikow		Dated:	May 21-23, 2012

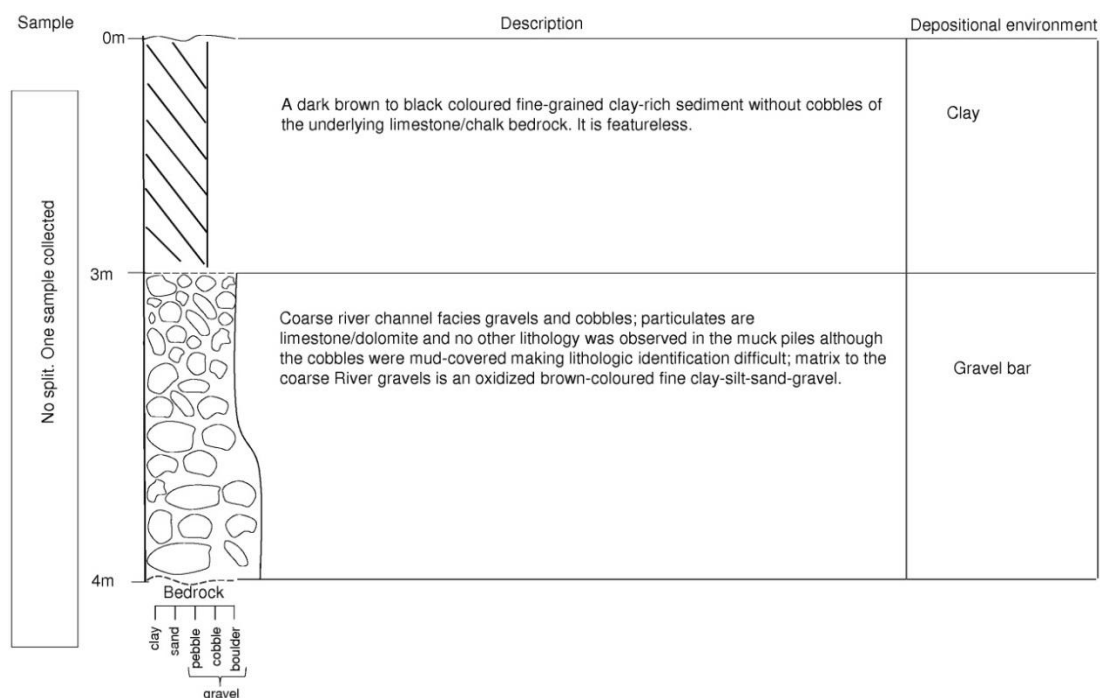


Figure 40a: Preliminary trench wall stratigraphic sketch of bulk sampling SY-982.

9.6.3 Density

Density determination during the pit and bulk sampling was done following a standard operating procedure since 2010 during the sampling of the Rakefet River (Rakefet Magmatic Complex drainage) and the Rakefet River alluvial fan (samples SY-690, 691, 707) as well as the Yoqneam River catchment (samples SY-771 and SY-787). Here it was determined that a gross value of

1.8g/cm³ for gravel bulk density and **1.4g/cm³** for clay bulk density apply to the basal gravel and clay overburden facies consistently.



Figure 40b: Bulk Sample SY-982 – overburden removal.

Bulk sample densities results obtained

SY-690: Bulk densities: 1.4 g/cm³ for clay; 1.8 g/cm³ for gravel

SY-691: Bulk densities: 1.4 g/cm³ for clay; 1.8 g/cm³ for gravel

SY-707: Bulk densities: 1.4 g/cm³ for clay; 1.8 g/cm³ for gravel

SY-771: Bulk densities: 1.4 g/cm³ for clay; 1.8 g/cm³ for gravel

SY-787: Bulk densities: 1.4 g/cm³ for clay; 1.8 g/cm³ for gravel

During July 2015, as part of a new intensive bulk sampling campaign designed for the Mid Reach exploration target this density measurement standard operating procedure was also applied during the extraction of bulk samples: SY-1174 and SY-1175. Here it was done using large squire metal boxes, purposely designed for this analysis and for all future bulk samplings.

SY-1174: Dry SG: 1.0748; (wet SG: 1.58; water content: 8.95%)

SY-1175 (shallow gravel): Dry SG: 1.922; (wet SG: 1.98; water content: 9.79%)

SY-1175 (basal gravel): Dry SG: 1.075 (wet SG: 1.18; water content: 3.27%)



Garnet



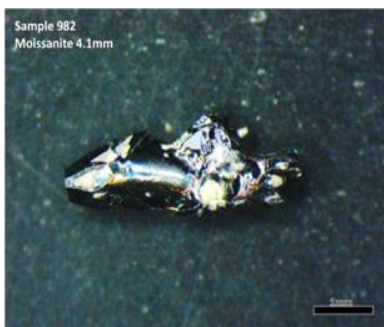
Ruby



Zircon



CPX



Moissanite 4.1mm



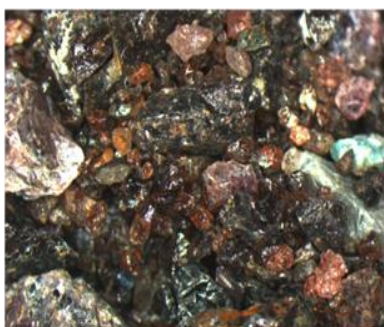
Olivine



Sapphire



Blue Sapphire



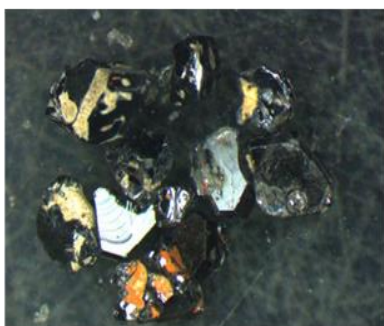
Corundum



Ilmenite



Moissanite 3.4mm



Moissanite

Figure 40c: Bulk Sample SY-982 minerals recovered. This sample yielded a total of 6ct moissanite including a 4.1mm stone, the largest ever recorded worldwide.

9.7 Thin Sections and Petrographic Descriptions + Zircons analysis

A total of 26 thin sections were produced out of samples from volcanic complexes on Mt. Carmel: Tavassim, Ofer, Shefeya, Makura, Kerem Maharal, Bat Shelomo and from Migdal Ha-Emeq and Hayogev in the northern and southern margins of the Yizre'el Valley respectively. Thin sections were analysed at Ben-Gurion University (Beer Sheva, Israel) and at De Beers Africa Exploration (SA) laboratories. In general, the analyses indicate that some of the volcanic rocks are para-kimberlite lamprophyre rocks and also notes the presence of eclogites in samples.

During their working visit (January 17-21, 2016) at Shefa Yamim's volcanic bodies - Prof. Bill Griffin and Prof. Sue O'Reilley sampled additional rock samples from Rakefet (RMC), Har Alon (Exploration Permit 869B6) and Bat Shelomo (Prospecting Permit 837A10). These samples were chosen for further sophisticated geochemical analysis, including SEM analysis (EBSD-Electron Backscatter Diffraction) and additional petrography (thin section analysis) at the GEMOC Institute of Macquarie University, Australia. Future results will enable the prioritization of Shefa Yamim's Exploration and Prospecting Permits' bodies.

Analysis of zircons:

Shefa Yamim is also collaborating with the ARC Centre of Excellence for Core to Crust Fluid Systems (Macquarie University, Sydney, Australia) in a program of research on the mantle-derived minerals brought to the surface in Cretaceous and younger volcanoes in the Mt Carmel-Kishon River area. This program includes dating and Hf-isotope analysis of zircon xenocrysts in the volcanic rocks. The purpose of the zircon work is to outline the pre-conditions that controlled the volcanism, and if possible to place better constraints on the timing of eruptions. Zircon is a very useful mineral in many mineral-exploration contexts. U-Pb dating of a zircon grain can give its age – the time at which it crystallized or recrystallized. When applied to detrital (alluvial) zircons, this technique can give a picture of the age distribution of the rocks that are shedding debris into the drainage that has been sampled. Analysis of the trace element patterns of individual grains can identify the type of magma from which an igneous zircon has crystallized, while the analysis of the isotopes of Hafnium (Hf) and Oxygen (O) can give information on the sources of the magmas. This combination of features can then be used to fingerprint the source rocks that were eroded to produce the zircons in the drainages.

Volcanic rocks such as the Rakefet Magmatic Complex typically carry zircons as xenocrysts – grains picked up by the magma on the way to the surface. Basaltic rocks do not themselves crystallize zircons directly, but zircon will precipitate from evolved melts that develop from basaltic ones that have been trapped at depth, rather than erupting. In an active volcanic system, zircons only slightly older than the erupted magma can be entrained, and the youngest dated zircon provides a maximum age for the eruption. We are using this approach to date some of the volcanic centres more accurately than has been done by other methods.

CCFS has carried out analysis of more than 200 individual zircons from Shefa Yamim samples to date; all grains have been analysed for their U-Pb age and Hf-isotope compositions, and subsets have been analysed for trace elements and oxygen isotopes. About half of the analysed grains have come from primary sources (vent rocks or tuffs) and the remainder from alluvial samples, particularly focused on the Kishon mid-reach placers.

Based on the results so far, CCFS regards it as important to continue with this line of research. They will increase the sample density on some of the primary sources to get a better determination of the eruption ages and the “fingerprint” of the zircon xenocrysts from each vent. This will be followed up with more detailed sampling of zircons from the Kishon River at points upstream of each major tributary, to identify the relative contributions of the different primary sources to the multi-commodity placer deposit.

The results of this zircon work, particularly on the primary sources, will be submitted to an international journal during 2017. It will provide part of the background information for papers on other aspects of the mineralogy and geochemistry of the corundum-moissanite mineral association (see Griffin, W.L., Gain, S.E.M., Adams, D.T., Huang, J-X., Saunders, M., Toledo, V., Pearson, N.J. and O’Reilly, S.Y. 2016. First terrestrial occurrence of tistarite (Ti₂O₃): Ultra-low oxygen fugacity in the upper mantle beneath Mt Carmel, Israel. *Geology* 44, 815-818).

10. DATA PROCESSING

10.1. Modelling

10.1.1 Mid Reach Deposit Modelling

The Mid Reach geological model comprises a single unit representing the mineralised entity, namely the gravel bed, being the host to the mineralisation in the Kishon River Valley. The following section describes the modelling methodology applied to the gravel unit mineralisation in particular, but also the modelling of bedrock morphology that plays an important role in placer development, as well as the overburden modelling. The focus is on the main findings to date at Zone 1 and Zone 2 in the Mid Reach.

10.1.2 Valley-floor Modelling

The bedrock representing the valley floor was modelled from borehole data where the logged interface of valley-fill sediments (predominantly gravel) and bedrock in all boreholes was recorded. This valley floor surface, which is interpreted to represent the base level topography at the time of the gravel bed deposition, was obtained from the borehole logging database where this spatial data was used to create a 2D wire frame and eventually a contour plot using Surfer™, of Golden Software Ltd for Zone 1 (Figures 40b, 41, 42, 43, 45 & 45a), and Zone 2 (Figures 39, 40a, 44). Zone 1 shows a prominent bedrock depression on the western side of the valley.

Elevated bedrock areas abruptly crossing over to bedrock depressions suggest the presence of scour pools.

The valley floor contour data was used as bottom surface for the gravel bed model and an overburden basal contact surface wireframe, representing the interface between the gravel and the overburden material, was used in the modelling with Golden Software's Surfer™. A 3D solid was then generated from the modelled hanging wall and footwall (valley floor) surfaces using Voxler™ 3D modelling software of Golden Software Ltd (Figure 39 & 40a). In areas where no gravel bed was intersected, the model was guided to pinch out to a zero thickness mid-way between mineralised and un-mineralised holes. The series of cross-sections generated on completion of the drilling campaign were used to verify modelling results.

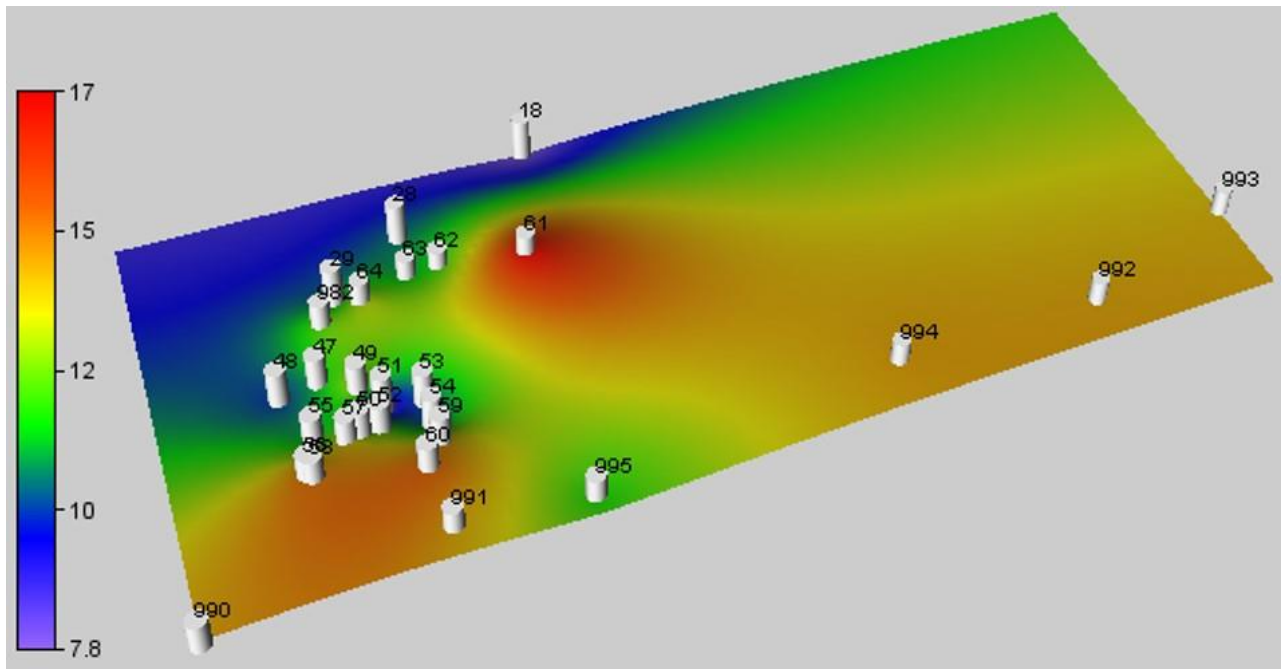


Figure 41: Zone 2 bedrock topography 3D model.

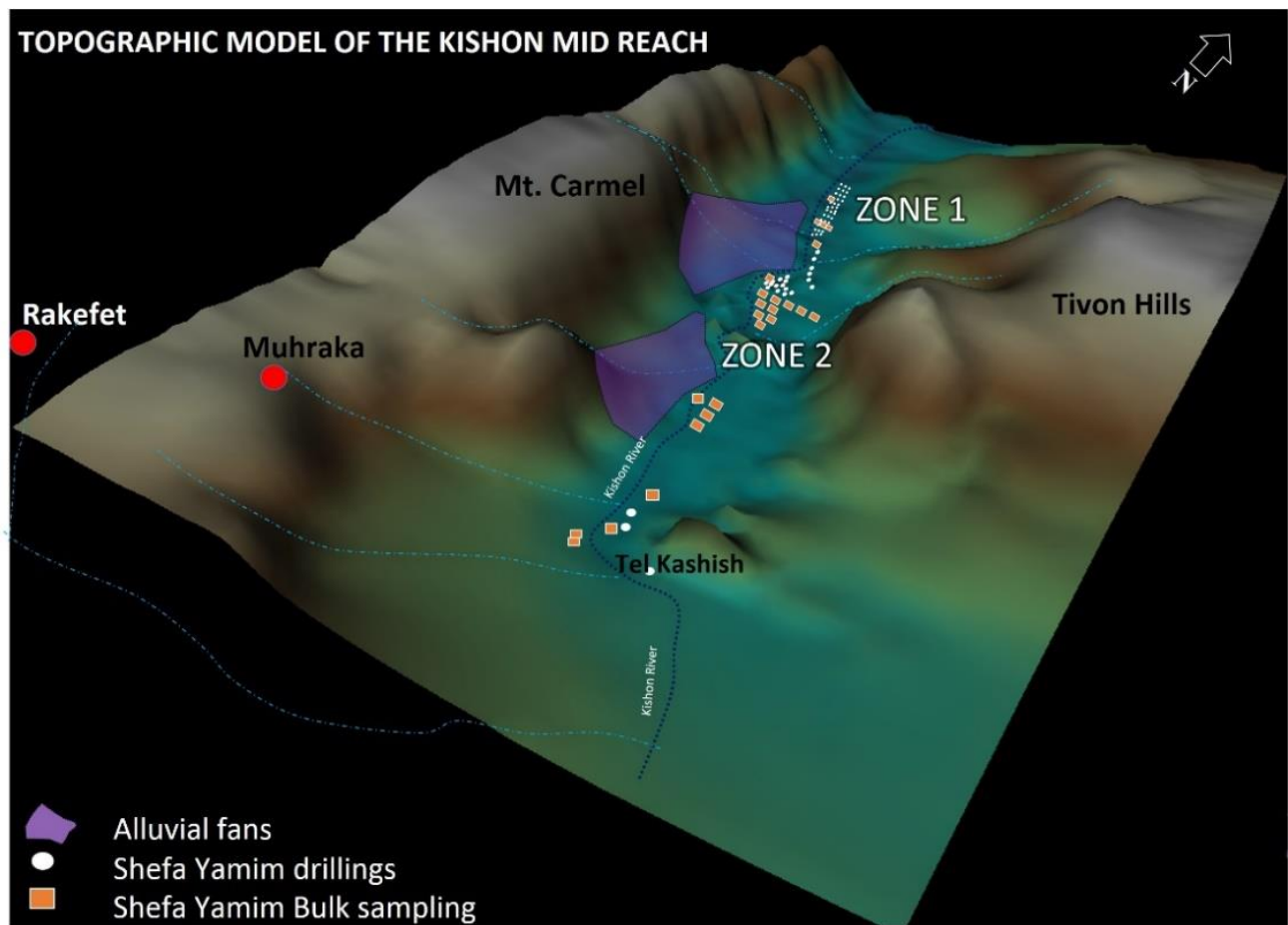
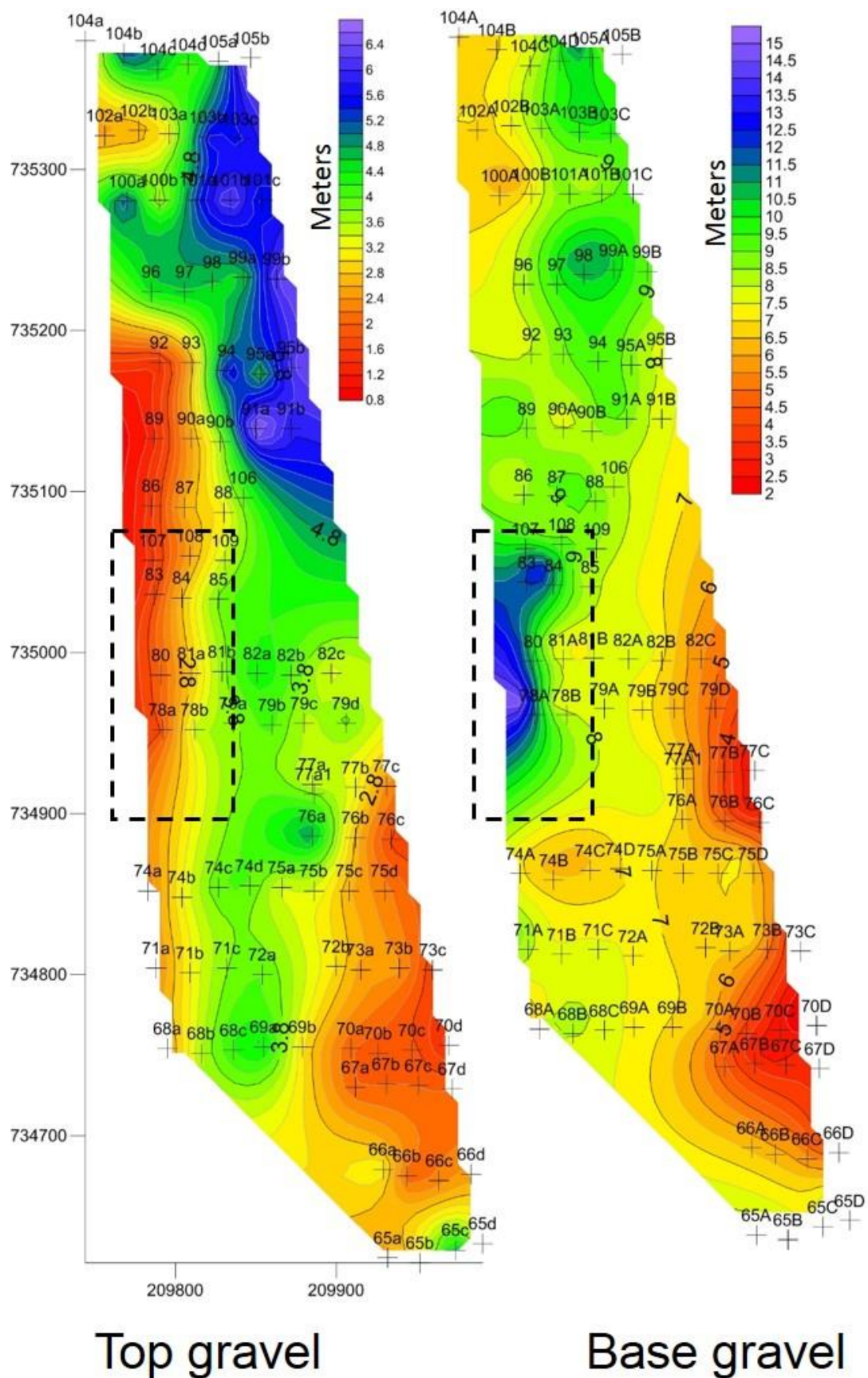


Figure 42: Mid Reach Valley floor topography map.



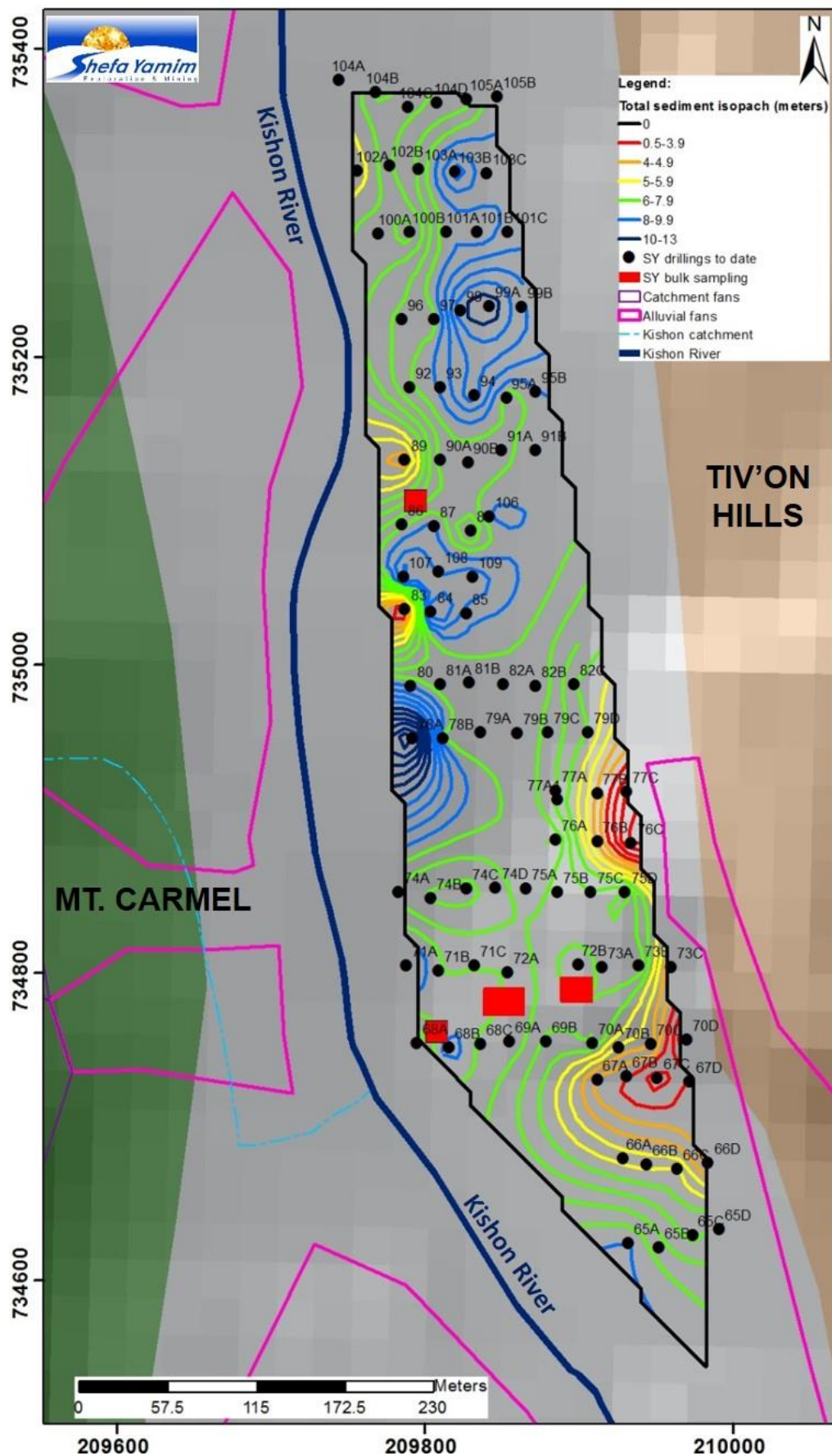


Figure 45: Contour map for the total sediment thickness (valley-fill) above the bedrock within the area of interest between boreholes SY-65 to SY-109 (Zone 1). Note the correlation between thick sediment cover and the alluvial fan to the west.

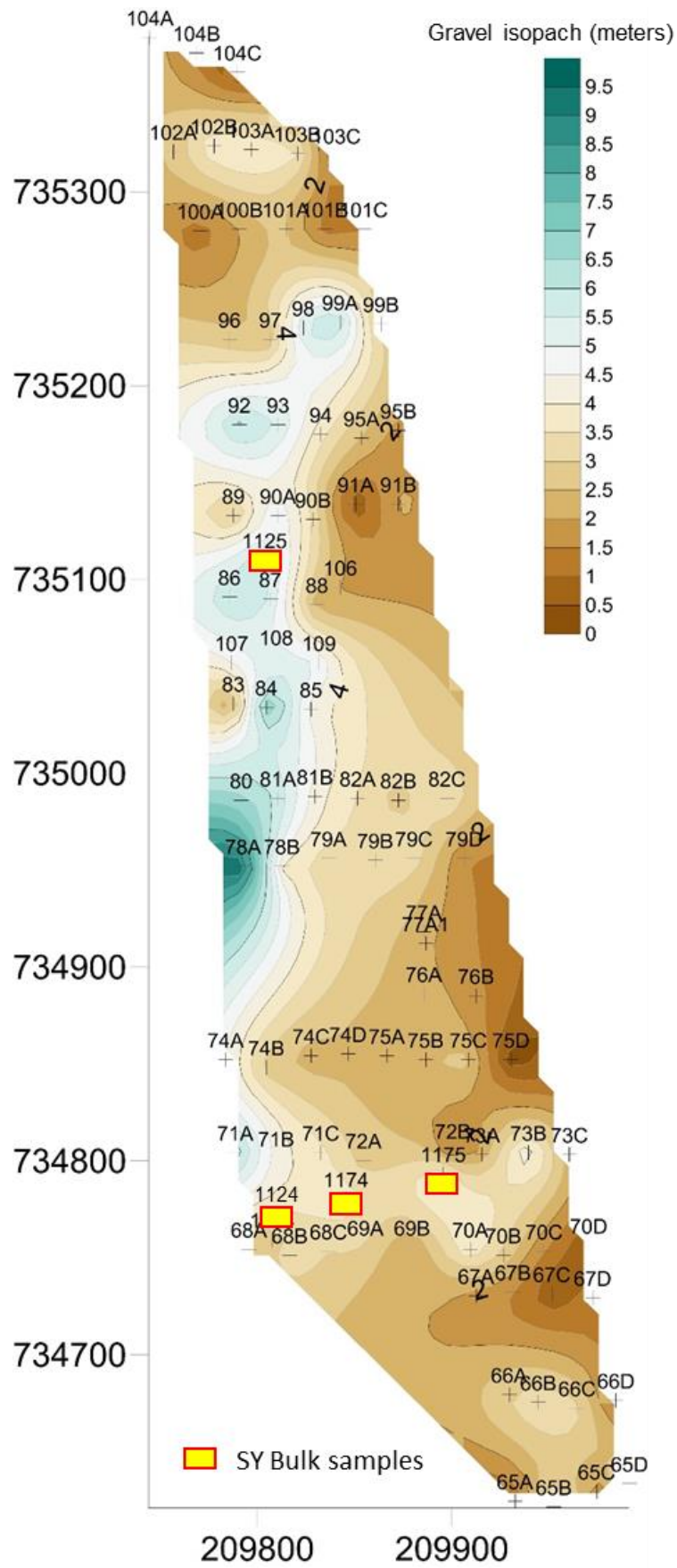


Figure 46: Contour map of the gravel thickness within the area of interest between boreholes SY-65 to SY-109 (Zone 1). Note the connection between thickness of the gravel deposit and the alluvial fan to the west.

ZONE 2 GRAVEL ISOPACH (METERS)

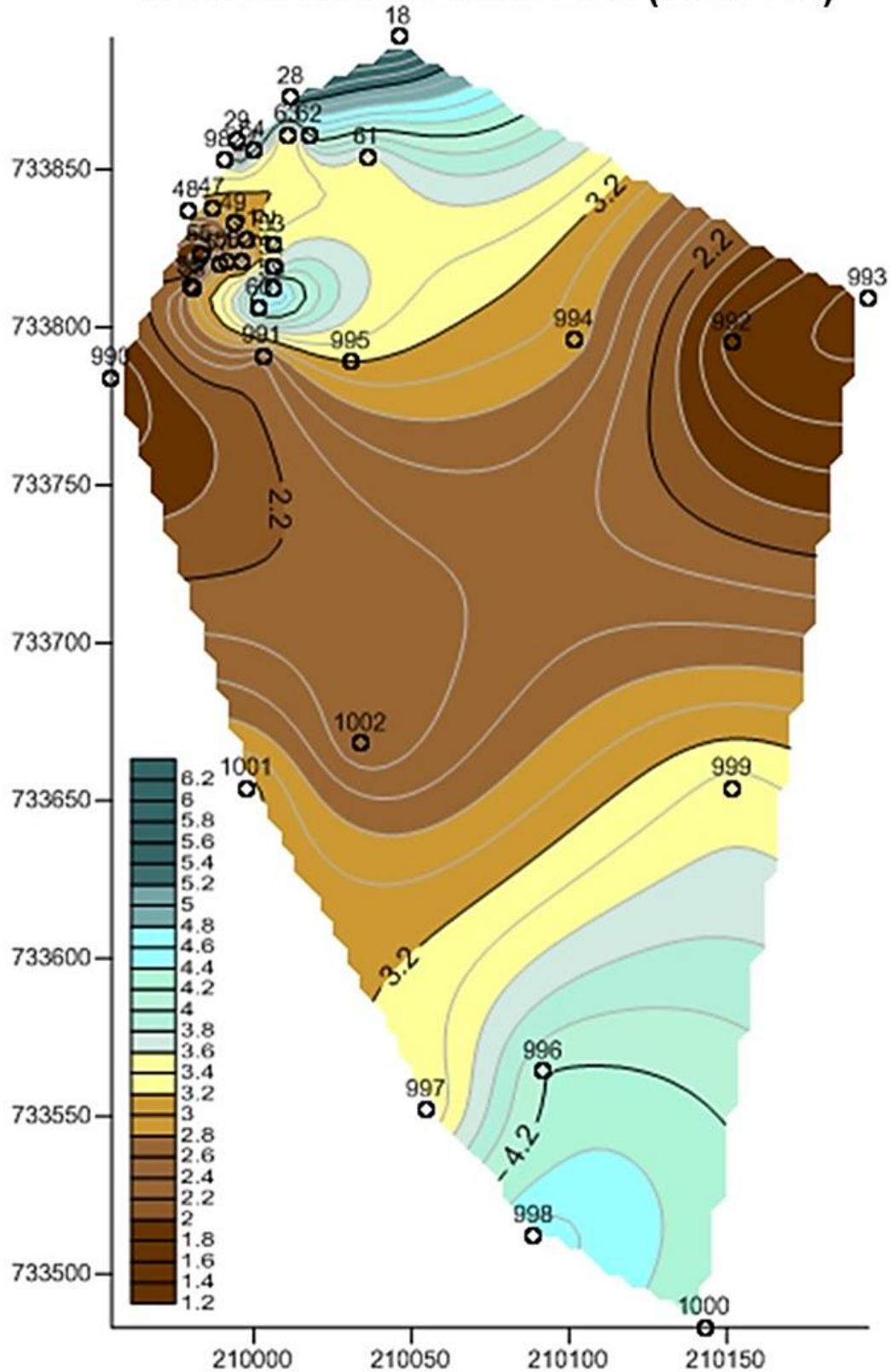


Figure 47: Contour map of the gravel thickness within the area of interest between boreholes SY-35 to SY-64 and bulk sampling 990 - 1002 (Zone 2).

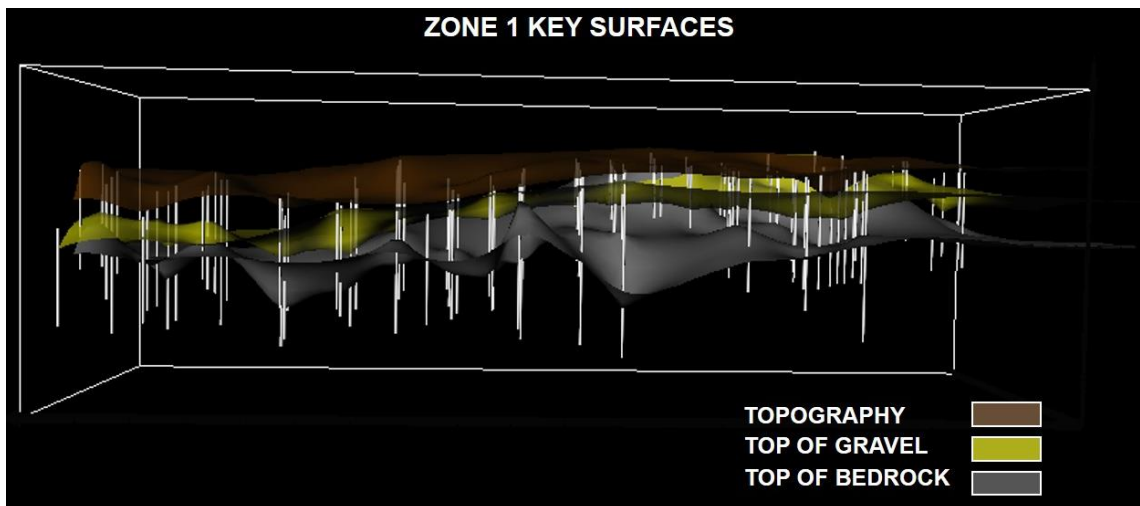


Figure 48a: 3D view of the area represented by boreholes 65-109 (Zone 1), view to the east (Toledo *et al.*, 2016).

10.1.3 Volume Estimation

Exploration target Shefa Yamim Borehole area SY-65 to SY-109 (Zone 1, Figures 26 and 47a). Thus, it excludes the results of the last drilling campaign of July 2016.

Total area:	160,000m ²
Area covered by drilling:	91,000m²
Area not underlain by basal gravel:	6,000m ²
Area underlain by gravel:	85,000m²

A: Overburden (clay)

Estimated volume (Voxler estimation): **430,000m³**

B: Gravel (upper and basal)

Estimated gross volume (Voxler estimation): **240,000m³**

(Fig. 47b; Toledo *et al.*, 2016)

C: Internal waste [intermediate clay]

Manually calculated volume: **25,000m³** - Sum of polygons of occurrence using:

Area * average thickness per area (boreholes) = Volume in m³.

Exploration target Shefa Yamim boreholes SY-35 to SY-64 & Bulk samples SY982 to SY1000 (Zone 2)

This area has been divided into polygons for more precise calculations. Polygons of higher confidence, i.e. closely-spaced holes and bulk sampling, are regarded "confirmed gravel".

Total area of calculation: 365,000m²

Validated overburden volume: 420,000m³

Validated basal gravel: 514,000m³

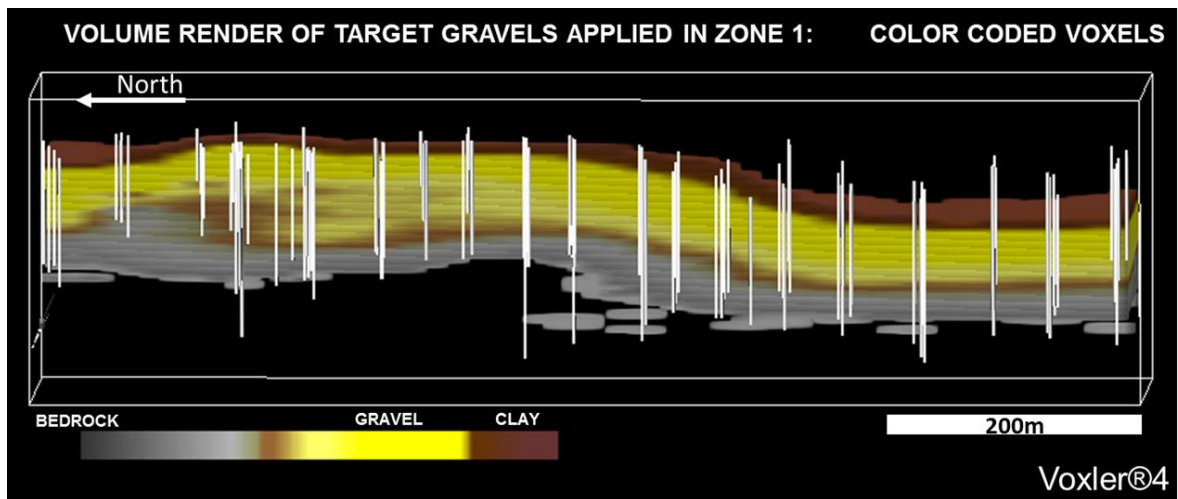


Figure 48b: 3D view of the area represented by boreholes 65-109 (Zone 1), view to the east.

10.2 Mineral Processing

To date more than 70% of the 4,197.7t of the pit and bulk samples collected have been processed in the Shefa Yamim's processing facility and laboratories at Akko with the primary objective of recovering the heavy mineral population including the gem minerals from the sampled gravels. The results are shown in Tables 6 and 7.

The alluvial, soil and rock samples collected in the permit area are transported to the Shefa Yamim processing facility in Akko, north of Haifa for treatment. The treatment processes include crushing (if required), washing (scrubbing), screening, jigging and treatment of the fraction less <2mm in a "Water Column" processing system for the final concentration of heavy minerals if required. Standard operating procedures are followed with proper validation systems such as tracer testing done routinely.

The concentrated minerals are sorted and representative sub-samples are subjected to XRD and XRF analysis. The mineralogical results are finally plotted on maps to facilitate the identification of anomalies of individual minerals and mineral assemblages. In addition, the petrogenesis of the minerals as determined by the chemical composition is also analysed. The procedures used are conventional for diamond and precious stone exploration and follow standard best practices principles used in the gem industry.

10.2.1 Mineral Processing Procedures

On arrival at the plant in Akko the samples are stockpiled in the processing facility yard and clearly marked with an identification number. The samples are then screened through a static grizzly screen that removes boulders larger than 100mm in diameter from the samples. The <100mm fraction is then washed in a scrubber that breaks up any clay agglomerates that might bind the material into clods.

The <0.5mm component of the sample, comprising mainly clay and fine-grained sand, is put in suspension in the wash water and pump to settling ponds from where clear water returns to the storage reservoirs for re-use. At the scrubber the +0.5mm component of the sample is washed and classified into 5 fractions: (1) 0.5-0.7mm (2) 0.7-1mm (3) 1-2mm (4) 2-4mm (5) 4-6mm (6) +6mm. This washed and sized material is then transferred to the pulsating jig plant for gravity separation treatment.

Table 8. Bulk sample SY-1124 results, including TMA content (Toledo *et al.*, 2016).



Bulk Sample 1124 Exploration Results (DMC)

Sample No	Total weight of the sample (Ton)	Sapphire		Corundum		Ruby		Moissanite		Total DMC Ct.	CPT	CPHT
		Ct	%	Ct	%	Ct	%	Ct	%			
1124	400.00	24.27	2.38%	991.43	97.19%	0.89	0.09%	3.54	0.35%	1020.13	2.55	255.03

BS-1124 TMA Content

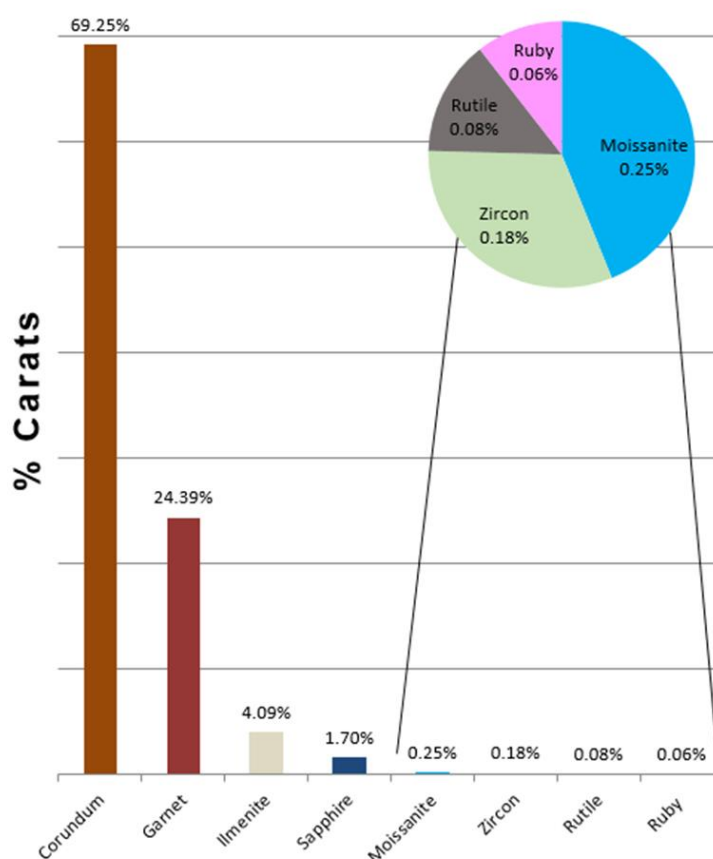


Table 9. Total weight of minerals in carats

B"H



Bulk Sampling (BS) Kishon Mid Reach Zone 1 & 2 - Carat calculator

ZONE	Sample No	Date of sampling	Start treatment date	Finished treatment date	Total weight of the sample (Ton)	Sapphire		Corundum (Carmel Sapphire)		Ruby		Moissanite		Hibonite		Garnet		Ilmenite		Zircon		Rutile		Total Ct	CPT	CPHT
						Ct	%	Ct	%	Ct	%	Ct	%	Ct	%	Ct	%	Ct	%	Ct	%	Ct	%			
1	1124	24/08/2014	26/04/2015	09/11/2015	400.00	24.27	1.70%	991.43	69.25%	0.89	0.06%	3.54	0.25%			349.16	24.39%	58.57	4.09%	2.61	0.18%	1.12	0.08%	1431.59	3.58	357.90
	1125	26-27/08/14	01/02/2015	16/08/2016	600.00	40.45	3.04%	730.17	54.87%	0.86	0.06%	1.32	0.10%	5.34	0.40%	438.57	32.96%	108.83	8.18%	3.53	0.27%	1.70	0.13%	1330.77	2.22	221.79
	1174	08-09/07/2015	25/10/2015	23/02/2016	533.00	41.13	4.77%	374.31	43.41%	0.48	0.06%	0.84	0.10%		0.00%	335.62	38.92%	102.43	11.88%	5.62	0.65%	1.80	0.21%	862.23	1.62	161.77
	1175	12/07/2015	22/02/2016	15/05/2016	539.00	4.78	1.69%	165.39	58.42%	2.15	0.76%	0.30	0.10%	5.85	2.06%	87.90	31.05%	16.05	5.67%	0.38	0.13%	0.34	0.12%	283.121	0.53	52.53
	1176	04/09/2016	27/09/2016	25/05/2017	508.78	0.33	0.72%	28.28	62.62%	0.01	0.02%	0.17	0.38%	0.05	0.10%	14.80	32.76%	1.39	3.07%	0.00	0.00%	0.15	0.33%	45.17	0.09	8.88
	1208	05/09/2016																								
	1210	06/09/2016	23/02/2017	21/05/2017	551.00	6.02	3.85%	24.81	15.84%	0.09	0.05%	0.05	0.03%	0.05	0.03%	110.72	70.69%	13.46	8.59%	1.11	0.71%	0.32	0.20%	156.63	0.28	28.43
	1211	08/06/2016	09/07/2017	30/08/2017	518.00	26.54	11.03%	37.87	15.73%	0.04	0.02%	0.09	0.04%	0.00	0.00%	125.75	52.24%	47.57	19.76%	2.38	0.99%	0.50	0.21%	240.73	0.46	46.47
	1212	19/09/2016	24/08/2017																							
	1213	20/09/2016	02/01/2017	08/03/2017	347.28	23.98	7.22%	21.01	6.33%	0.02	0.005%	0.07	0.02%	0.28	0.09%	182.37	54.92%	101.04	30.43%	2.70	0.81%	0.60	0.18%	332.07	0.96	95.62
	1214	22/09/2016	28/05/2017	13/07/2017	529.74	14.85	6.82%	42.34	19.45%	0.59	0.271%	0.11	0.05%	4.89	2.25%	109.73	50.41%	42.14	19.36%	2.68	1.23%	0.33	0.15%	217.66	0.41	41.09
	1226	10/09/2017			398.96																					
	1227	11/09/2017			551.20																					
	1228	12/09/2017			248.90																					
2	982	21/05/2012	01/06/2012	27/05/2013	400.00	54.99	59.34%	29.77	32.12%	1.97	2.13%	5.94	6.41%											92.67	0.23	23.17
	990	03/09/2012	03/02/2013	13/02/2013	17.15	41.14	96.01%	1.50	3.50%	0.06	0.14%	0.15	0.35%											42.85	2.50	249.93
	991	03/09/2012	20/02/2013	27/02/2013	17.35	8.34	92.77%	0.61	6.79%	0.00	0.00%	0.04	0.44%											8.99	0.52	51.83
	992	03/09/2012	05/03/2013	07/03/2013	15.51	2.12	56.23%	1.62	42.97%	0.00	0.00%	0.03	0.80%											3.77	0.24	24.31
	993	03/09/2012	06/11/2012	08/11/2012	10.00	1.51	78.24%	0.42	21.76%	0.00	0.00%	0.00	0.00%											1.93	0.19	19.30
	994	03/09/2012	18/03/2013	13/03/2013	11.59	3.72	80.00%	0.90	19.35%	0.01	0.22%	0.02	0.43%											4.65	0.40	40.12
	995	04/09/2012	06/01/2013	30/01/2013	29.70	28.20	82.72%	5.22	15.31%	0.44	1.29%	0.23	0.67%											34.09	1.15	114.78
	996	04/09/2012	13/03/2013	17/03/2013	10.00	3.58	92.03%	0.30	7.71%	0.01	0.26%	0.00	0.00%											3.89	0.39	38.90
	997	04/09/2012	19/12/2012	23/12/2012	10.00	3.66	87.77%	0.44	10.55%	0.01	0.24%	0.06	1.44%											4.17	0.42	41.70
	998	05/09/2012	30/12/2012	03/01/2013	10.00	2.15	55.84%	1.58	41.04%	0.03	0.78%	0.09	2.34%											3.85	0.39	38.50
	999	05/09/2012	12/11/2012	20/11/2012	10.00	1.08	58.06%	0.61	32.80%	0.00	0.00%	0.17	9.14%											1.86	0.19	18.60
	1000	04/09/2012	10/03/2013	12/03/2013	14.49	10.21	88.71%	1.05	9.12%	0.21	1.82%	0.04	0.35%											11.51	0.79	79.43
	1001	05/09/2012	02/12/2012	05/12/2012	10.00	4.27	92.62%	0.31	6.72%	0.00	0.00%	0.03	0.65%											4.61	0.46	46.10
	1002	05/09/2012	25/11/2012	28/11/2012	10.00	4.01	89.11%	0.49	10.89%	0.00	0.00%	0.00	0.00%											4.50	0.45	45.00
	1223	24/08/2017			690.50																					
	1224	25/08/2017			553.18																					
	1225	27/08/2017			566.22																					
	1229	26/09/2017			530.00																					
	1230	27/09/2017			568.90																					

Table 10. Bulk sampling Kishon Mid Reach Zone 1 & 2 – Carat calculator

Bulk Sampling (BS) Kishon Mid Reach Zone 1 & 2 - Carat calculator

ZONE	Sample No	Date of sampling	Start treatment date	Finished treatment date	Total weight of the sample (Ton)	Sapphire		Corundum (Carmel Sapphire)		Ruby		Moissanite		Hibonite		Garnet		Ilmenite		Zircon		Rutile		Total Ct	CPT	CPHT
						Ct	%	Ct	%	Ct	%	Ct	%			Ct	%	Ct	%	Ct	%	Ct	%			
1	1124	24/08/2014	26/04/2015	09/11/2015	400.00	24.27	1.70%	991.43	69.25%	0.89	0.06%	3.54	0.25%			349.16	24.39%	58.57	4.09%	2.61	0.18%	1.12	0.08%	1431.59	3.58	357.90
	1125	26-27/08/14	01/02/2015	16/08/2016	600.00	40.45	3.04%	730.17	54.87%	0.86	0.06%	1.32	0.10%	5.34	0.40%	438.57	32.96%	108.83	8.18%	3.53	0.27%	1.70	0.13%	1330.77	2.22	221.79
	1174	08-09/07/2015	25/10/2015	23/02/2016	533.00	41.13	4.77%	374.31	43.41%	0.48	0.06%	0.84	0.10%		0.00%	335.62	38.92%	102.43	11.88%	5.62	0.65%	1.80	0.21%	862.23	1.62	161.77
	1175	12/07/2015	22/02/2016	15/05/2016	539.00	4.78	1.72%	165.39	59.65%	2.15	0.78%	0.30	0.11%		0.00%	87.90	31.70%	16.05	5.79%	0.38	0.14%	0.34	0.12%	277.29	0.51	51.45
	1176	04/09/2016	27/09/2016	25/05/2017	508.78	0.33	0.72%	28.28	62.62%	0.01	0.02%	0.17	0.38%	0.05	0.10%	14.80	32.76%	1.39	3.07%	0.00	0.00%	0.15	0.33%	45.17	0.09	8.88
	1208	05/09/2016																						0.00		
	1210	06/09/2016	23/02/2017	21/05/2017	551.00	6.02	3.85%	24.81	15.84%	0.09	0.05%	0.05	0.03%	0.05	0.03%	110.72	70.69%	13.46	8.59%	1.11	0.71%	0.32	0.20%	156.63	0.28	28.43
	1211	08/06/2016	09/07/2017																					0.00		
	1212	19/09/2016																						0.00		
	1213	20/09/2016	02/01/2017	08/03/2017	347.28	23.98	7.22%	21.01	6.33%	0.02	0.005%	0.07	0.02%	0.28	0.09%	182.37	54.92%	101.04	30.43%	2.70	0.81%	0.60	0.18%	332.07	0.96	95.62
	1214	22/09/2016	28/05/2017	13/07/2017	529.74	14.85	6.82%	42.34	19.45%	0.59	0.271%	0.11	0.05%	4.89	2.25%	109.73	50.41%	42.14	19.36%	2.68	1.23%	0.33	0.15%	217.66	0.41	41.09
2	982	21/05/2012	01/06/2012	27/05/2013	400.00	54.99	59.34%	29.77	32.12%	1.97	2.13%	5.94	6.41%											92.67	0.23	23.17
	990	03/09/2012	03/02/2013	13/02/2013	17.15	41.14	96.01%	1.50	3.50%	0.06	0.14%	0.15	0.35%											42.85	2.50	249.93
	991	03/09/2012	20/02/2013	27/02/2013	17.35	8.34	92.77%	0.61	6.79%	0.00	0.00%	0.04	0.44%											8.99	0.52	51.83
	992	03/09/2012	06/03/2013	07/03/2013	15.51	2.12	56.23%	1.62	42.97%	0.00	0.00%	0.03	0.80%											3.77	0.24	24.31
	993	03/09/2012	06/11/2012	08/11/2012	10.00	1.51	78.24%	0.42	21.76%	0.00	0.00%	0.00	0.00%											1.93	0.19	19.30
	994	03/09/2012	18/03/2013	13/03/2013	11.59	3.72	80.00%	0.90	19.35%	0.01	0.22%	0.02	0.43%											4.65	0.40	40.12
	995	04/09/2012	06/01/2013	30/01/2013	29.70	28.20	82.72%	5.22	15.31%	0.44	1.29%	0.23	0.67%											34.09	1.15	114.78
	996	04/09/2012	13/03/2013	17/03/2013	10.00	3.58	92.03%	0.30	7.71%	0.01	0.26%	0.00	0.00%											3.89	0.39	38.90
	997	04/09/2012	19/12/2012	23/12/2012	10.00	3.66	87.77%	0.44	10.55%	0.01	0.24%	0.06	1.44%											4.17	0.42	41.70
	998	05/09/2012	30/12/2012	03/01/2013	10.00	2.15	55.84%	1.58	41.04%	0.03	0.78%	0.09	2.34%											3.85	0.39	38.50
	999	05/09/2012	12/11/2012	20/11/2012	10.00	1.08	58.06%	0.61	32.80%	0.00	0.00%	0.17	9.14%											1.86	0.19	18.60
	1000	04/09/2012	10/03/2013	12/03/2013	14.49	10.21	88.71%	1.05	9.12%	0.21	1.82%	0.04	0.35%											11.51	0.79	79.43
	1001	05/09/2012	02/12/2012	05/12/2012	10.00	4.27	92.62%	0.31	6.72%	0.00	0.00%	0.03	0.65%											4.61	0.46	46.10
	1002	05/09/2012	25/11/2012	28/11/2012	10.00	4.01	89.11%	0.49	10.89%	0.00	0.00%	0.00	0.00%											4.50	0.45	45.00

* Without Hibonite Findings



Figure 49: Processing facility and laboratories at Akko. Top: Scrubber plant for the washing and liberation of sand-size sediment from clay aggregates. Middle: Two classification and jig plants. Bottom: Mineral final recovery laboratory where the sorting of minerals is done manually.

After gravity separation by means of the modified Pleitz jig plant (multi-stage), samples follow different treatment streams based on size fractions (Figure 46). All sample processing work is done by following a clearly stipulated Standard Operating Procedure (SOP).

Samples in the -2mm size fraction are:

1. Dried, weighed and their sample date recorded.
2. Visual inspection and sorting in the recovery laboratory.
3. Data is recorded and incorporated into the database.
4. Samples in the -2mm size fraction is classified into 3 size categories (0.5-0.7mm, 0.7-1mm and 1-2mm) and jigged in the separate classes
5. The centre of the jig pan (concentrate) is collected, dried and sieved to size fractions.
6. Material on the outer part of the jig pan is discarded.
7. The “Water Columns” treat the material less than 2mm: 0.5-0.7mm, 0.7-1mm and 1-2mm.
8. Orange cube-shaped epoxy tracers with specific gravities of 3.53 and sizes of 1mm and 2mm are used as tracer validation as part of the QA/QC process
9. Samples are then dried, weighed and recorded in the database.
10. Visual inspection and sorting in the recovery laboratory using binocular microscopes.
11. Data is recorded and incorporated into the database.

The jig supervisor carries the ultimate responsibility to ensure that the jigging system operates according to the specifications and procedures, that tracer tests are done as prescribed and the tracer recoveries are recorded. The recorded data is prepared and logged in line with the requirements stipulated in the SOP and passed on to the project manager.

The jig supervisor manually documents the jigging process: Start and finish times, tracers introduced, tracer tracking, taking photos, adding remarks (e.g. water flow changes, etc.). Density tracer tests are carried out with the use of cube-shaped epoxy tracers with specific gravities of 3.53 SG and sizes from 1mm, 2mm, 4mm, 6mm and 8mm. Density tracer tests are carried out on every jigging run to monitor the separating effectiveness of the pulsating jigs.

Samples in the 2mm-8mm size fraction are:

Visually inspected and sorted in the recovery laboratory.

Samples in the +8mm size fraction are:

Sorted by hand on a picking belt.

10.2.2 Mineral Sorting

Shefa Yamim staff is well-trained in the mineralogical identification of the Target Mineral Assemblage (TMA), including the DMCH suite, the HIM suite and the pathfinder KIMs. The mineralogical identification focusses on KIMs such as Garnet (pyrope/eclogitic), Ilmenite, Spinel and Chrome-Diopside (CPX) in addition to the TMA minerals of Diamond, Rutile, Sapphire, Ruby, Carmel Sapphire, Moissanite, Hibonite and Zircon. The mineralogical recovery staff records the data in the company's database, together with the original sample volume data.

Shefa Yamim follows a set of SOPs for alluvial and soil/rock/stream prospecting samples in its laboratory. These procedures are conventional for diamond and precious stone exploration and similar to the best practices used by other exploration companies worldwide. Training and sorting efficiency was tested in the Shefa Yamim laboratory with the addition and recovery of natural diamond tracers. This was accomplished on more than one occasion. Several diamond tracers were placed into samples for recovery efficiency testing (these tracers are natural diamond crystals with one polished face and a serial number). The sorters in the laboratory have demonstrated their efficiency in identifying and recovering diamonds, along with the rest of the TMA. The mineralogical testing will also continue to focus on the KIMs such as: Garnet (pyrope), Ilmenite, Spinel and Chrome-Diopside (CPX), in addition to Diamond, natural moissanite, Sapphire, Ruby, Carmel Sapphire, Hibonite and on the heavy minerals Rutile, Zircon, Garnet, Corundum, ilmenite. All the other mineral descriptions are recorded and saved in the company's database.

11. MINERAL RESOURCE AND RESOURCE AND MINERAL RESERVE ESTIMATES

11.1 Introduction

This section describes the methods used to derive and classify the latest "Mineral Resource and Reserve" estimates for the Shefa Yamim project. The Shefa Yamim in-house geologist, Reli Wald, was responsible for the calculation of the volume figures. These calculations exclude the data obtained from the drilling done in July 2016. The resource estimation procedures were validated by Creo.

11.2 Geological interpretation

After 18 years of exploration in a "greenfields" terrain, Shefa Yamim has established the presence of a Target Mineral Assemblage (TMA) in both primary Mesozoic and Cenozoic volcanic sources, and in Cenozoic secondary alluvial deposits in the Kishon River Valley. On Mt. Carmel and in the Ramot Menashe areas the TMA comprises four precious stones

(diamond, moissanite (natural moissanite that is rare globally) sapphire, ruby, and five heavy minerals (corundum, zircon, rutile, ilmenite, and garnet).

A robust “Source to Sink” geological model has been developed in 2014 to guide placer exploration of the alluvial placer deposits developed in the Kishon River valley and to improve the understanding of the primary source emplacement of the TMA into this relatively short-reach fluvial system that terminates in a marine setting.

The extensive sampling yielded abundant KIMs such as garnet, ilmenite, spinel, clinopyroxene and rare diamond and also several varieties of corundum (notably Carmel Sapphire, blue sapphire and ruby). In addition, there was a significant amount of the rare natural moissanite (including the two largest natural grains recovered to date in the world, 4.1mm and 4.14mm) and zircon, ilmenite and rutile recovered.

The primary sources of these minerals comprising the DMCH suite are the ultramafic and mafic volcanoclastic rocks from Mt. Carmel (Upper Cretaceous in age) and the Yizre’el and Afula basins and their faulted margins (primarily Miocene in age). These primary sources were eroded by the Kishon River and its tributaries, driven largely by the Neogene uplift of Mt. Carmel and extrusion of basalts along the faulted margins of the Yizre’el and Afula basins. The erosional products from Mt. Carmel, and in particular those from the primary sources, were deposited in secondary deposits in the Kishon graben that was subjected to marine reworking at intervals during the Neogene at its distal end.

Exploration to date delineated a 4.5km long deposit in the Mid Reach of the Kishon River where in places the DMCH suite is sufficiently well concentrated to form placers. Consequently, a source-to-sink geological model has been developed for the Kishon catchment whereby the DMCH suite is associated with a series of placers. Channel and terrace gravel of the Kishon River Mid Reach has been the focus of attention in this regard.

11.2.1 Mid Reach Gravel Deposits

The valley-fill sediments accumulated as Kishon River floodplain and terrace deposits generally comprise a basal gravel layer of 2 - 3m thick overlain by a 3 - 4m thick dark-brown clay overburden. The gravel unit comprises cobble to pebble, rounded to sub-rounded, clast-supported gravel in a clayey sand matrix. Occasional boulders do occur.

11.3 Audit Procedures

Creo has independently verified the underlying sampling and assay data. Creo considers that, given the extensive sampling programme, geological investigations, check procedures and, in certain instances, independent audits, the estimates reflect an appropriate level of confidence.

The Mineral Resources and Reserves estimates use the terms and definitions as set out by SAMREC. Furthermore, the Inferred Mineral Resources are not inclusive of those Mineral Resources modified to produce Mineral Reserves and therefore only a Mineral Resource will be considered.

11.4 Mineral Resource and Reserve Estimation Methodology

The method of estimating the mineral resources was used on only one relatively small area (referred to as Zone 1) between boreholes SY-65 and SY-109 in the Mid Reach of the Kishon River valley. This represents an area of approximately 200m x 800m or 160 000m², a very small portion of the Mid Reach and the permit area in total (Figures 47).

The estimation of resource blocks is not typical of a mining operation where the value of resource blocks is estimated and classified well ahead of the mining blocks presently being developed and mined.

Because of the highly erratic nature of both the DMCH mineralisation zones and of the grade within them, no attempt was made to evaluate this and merely a volume figure can be presented. No comment can be presented on the continuity of grade values within the mineralised horizons due to the limited data. The Mineral Resource block has been defined based on information obtained mainly during drilling. The gravel deposit geometry has been modelled using Golden Software's Voxler™ 3D modelling software. This software allows the three-dimensional structure of the mineralised volume to be viewed graphically.

11.5 Quality and Quantity of Data

Within Zone 1, the exploration area between boreholes SY-65 to SY-109, drill lines were set out perpendicular to the valley and therefore the gravel body. Drilling was performed at 50m drill line intervals with an average of 5 boreholes per drill line. Borehole spacing in the drill lines averaged 25m (Figure 47).

Therefore, the spacing of boreholes was not on a definite grid. However, the layout of sample points was totally unbiased and not influenced by any geological considerations. The assay results were entered into a database from where the data was imported into the

Voxler™ 3D modelling software where the data gets displayed spatially and ultimately a volume could be calculated.

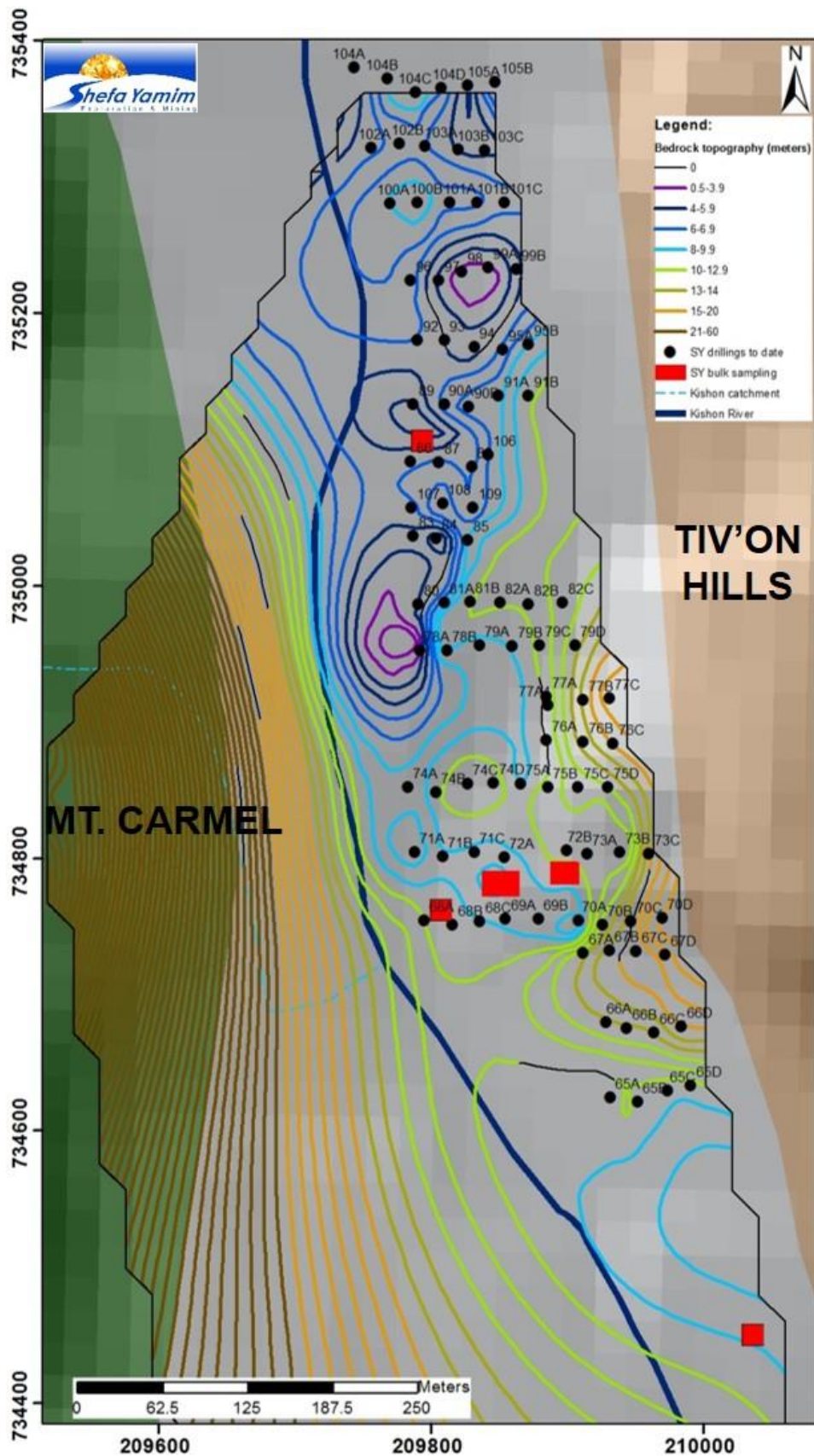


Figure 50: A map of the 800m x 200m inferred resource area between boreholes SY-65 and SY-109 at the Mid Reach of the Kishon River valley showing the borehole locations and bedrock contours

11.6 Quality Assurance/Quality Control

Samples were treated at the Shefa Yamim processing facility and laboratory in Akko, under the personal supervision of the management of Shefa Yamim. Here the samples were crushed (if required), washed, screened, jigged and sorted. Standard operating procedures were followed with proper validation processes such as tracer testing being done routinely. The procedures followed are conventional for diamond and precious stone exploration and is based on best practices principles used in the gem industry.

The use of simple sample checks (tracers and marked gems such as diamonds with a polished facet) are used as a standard procedure by Shefa Yamim to assess recovery standards.

Sample custody was done properly with detailed labelling of samples, good sample security and proper record keeping in place.

11.7 Tonnage Estimation

Zone 1 Boreholes SY-65 to SY-109)

Creo applied the average *in situ* density values to generate a tonnage estimate for the gravel units. The density value applied to the gravels of the Mid Reach domain, Zone 1, represented by the area between boreholes SY-65 to SY-109 is 1.49g/cm³ that was obtained during analysis of the gravel component of samples 1174 and 1175 with SG values of 1.0748 g/cm³ and 1.922g/cm³ respectively. This value is lower than the average of 1.8g/cm³ for gravel samples elsewhere in the Kishon River floodplain. The 1.49g/cm³ value is considered an appropriate value for the use in tonnage estimation of gravel in this particular section of the floodplain. The total volume figure presented by the modelling of this gravel body was 240 000m³ of gravel. This gives a total resource of 350 000t of DMCH-bearing gravel in this part of Zone 1 of the Kishon River Mid Reach.

Zone 2 (SY-982 area)

Preliminary tonnage estimations for overburden and gravel layers were done based on confirmed polygons of high confidence, where dense spaced drilling and bulk samples were done.

Total area of calculation: 365,000m²

Overburden estimated tonnage: 420,000t

Gravel estimated tonnage: 750,000t

11.8 Mineralisation

11.8.1 Exploratory Data Analysis Exploratory data analyses are the application of various statistical tools to characterise the statistical behaviour or grade distributions of the data set. In this case, the objective is to understand the population distribution of the grade elements in the various units using such tools as histograms, descriptive statistics, and probability plots. Of the 24 Kishon River Mid Reach samples treated, 15 were pit samples of <50t each and three samples (SY-982, SY-1124 and SY-1174) were bulk samples. The smaller pit samples and even the larger bulk samples are not sufficiently large enough to give statistical meaningful grade distribution results. These samples can therefore not be considered truly representative samples presenting a true account of the mineral populations present in terms of its proportion and size distribution. This is well demonstrated in bulk samples SY-982, SY-1124 and SY-1124 where, despite the 400t sampled, it failed in yielding the complete size range of corundum, the most abundant gem mineral present. Bulk sample SY-1124 yielded an astounding 991.43ct of Corundum/"Carmel Sapphire".

11.8.2 Assays

A total of 4,127.720t have been analysed by the Shefa Yamim in-house processing facility and laboratories for TMA Suite minerals including DMCH suite and HIM suite mineral content (Table 4). All the samples treated yielded KIMs, TMA and a considerable proportion of the DMCH mineral population. The DMCH mineral content was demonstrated by the smaller pit samples, but the variation in yield is probably attributable to the small sample sizes and would therefore result in large variation in grade figures. The two bulk samples are still probably too small, but some useful trends could be seen here (Tables 6 & 7).

Bulk Sample SY-1124 yielded some 292g heavy minerals of which gem minerals constitutes 2% of the total population recovered from the 400t of Kishon River basal gravels. Sapphire, moissanite and ruby (Figure 48) make up a considerable proportion of the minerals recovered. Exceptionally large moissanite crystals have been found in several test pits (Figures 49a & 49b).

Bulk sample SY-1174 yielded a total of 862.14cts of heavy minerals recovered, giving an overall grade (mineral content) of some 162cpht at a bottom screen size of 1mm. Here placer minerals were dominated by the Carmel Sapphire component (43%), followed by the HIM suite minerals Garnet (38%) and Ilmenite (12%) with the DMCH suite Sapphires running at some 5%. Minor contributions came from the HIM minerals Zircon (0.61%)

and Rutile (0.21%) with the DMCH suite rare minerals being Moissanite (0.1%) and Ruby (0.06%). The recovered grade of Carmel Sapphire, the dominant heavy mineral, was some 70cpht with one substantial stone of 19.55cts (Figures 50a & 50b).

All in all, diamonds are present in the Kishon catchment, but are rare. Shefa Yamim recovered 77 diamonds from its permit areas of which 76 are alluvial diamonds from the Kishon River valley and one micro diamond found by De Beers geologists in an approximately 260kg sample they collected from the Rakefet Magmatic Complex. One diamond was found in borehole SY-18 in the Kishon River Mid Reach.

The recently discovered hibonite crystals represents a sizable proportion of the gem stones in the samples and due to its high status in the gem industry, it should make a sizable contribution to the overall value of the gem population (Appendix III). However, quantitative data on the hibonite occurrence is not available yet, but it is estimated to be at least a few percent of the total gem assemblage.

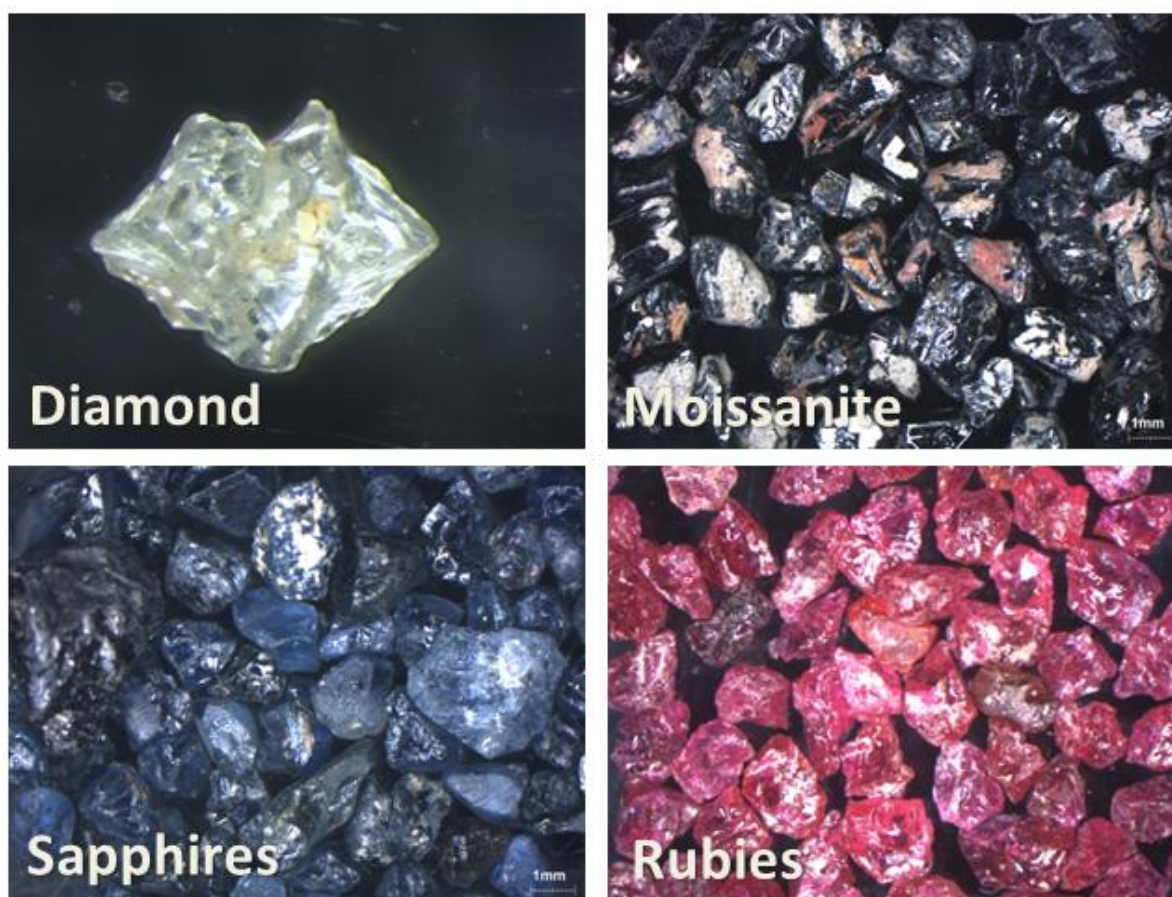


Figure 51: The gem variety DMCH minerals, from left to right – diamond, moissanite, sapphire and ruby recovered from the Kishon River gravels.

11.8.3 Grade Profile

Insufficient data prevents any attempt at statistical analysis of grade distribution such as the compilation of variograms at this stage. This is clearly demonstrated in the variation in subsample grade and in grade values of neighbouring samples. Therefore, calculations of grade for any of the bulk samples would not be meaningful for these small samples.

12. MINERAL RESOURCE STATEMENT

12.1 Introduction

This section describes the status of the Shefa Yamim project in terms of its classification into an appropriate resource category.

12.2. Resource Statement

12.2.1 Mineral Resource

For the Shefa Yamim permit area or any portion thereof to be considered a Mineral Resource it must be an occurrence of gem stones of economic interest in such form, quality and quantity that there are reasonable and realistic prospects of gem stone extraction for the jewellery market. Here, location, quantity, grade, continuity and other geological characteristics of this mineral resource should be known, estimated from specific geological evidence and knowledge.

Gem stone deposits and alluvial deposits demonstrate an inherent variability in the distribution of economic extractable gem stones. Sampling this type of deposit requires large volume samples. Standard drilling techniques and smaller pit samples are not able to provide sufficient sample volumes and, therefore, the required data to enable estimation of tonnages and grades. Conventional drilling as currently employed can only provide information to determine the volume of the different mineralisation areas, and its relationship to geological features. Therefore, for a deposit to be considered a Mineral Resource it is highly dependent on the availability of the results of appropriate size bulk samples.

SY Sample 982
Moissanite
4.1mm

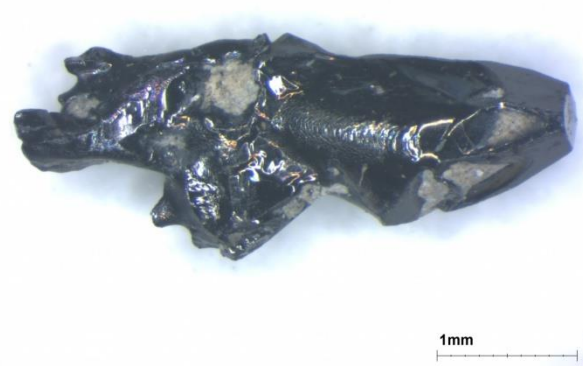


Figure 52a: A 4.1mm long moissanite crystal
found in Bulk Sample SY-982

BS-1124
Natural Moissanite
4.14mm

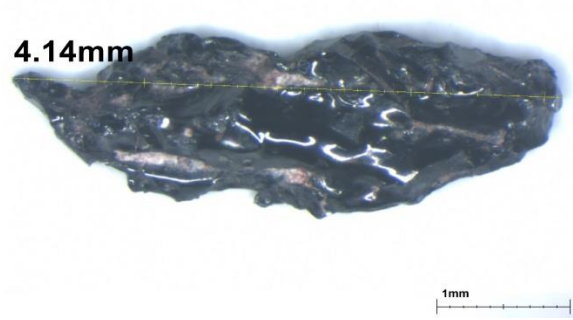


Figure 52b: 4.14mm long moissanite crystal
found in Bulk Sample SY-1124

Sample 1124
Carmel Sapphire before polishing the volcanic glass crust
3.315Ct.

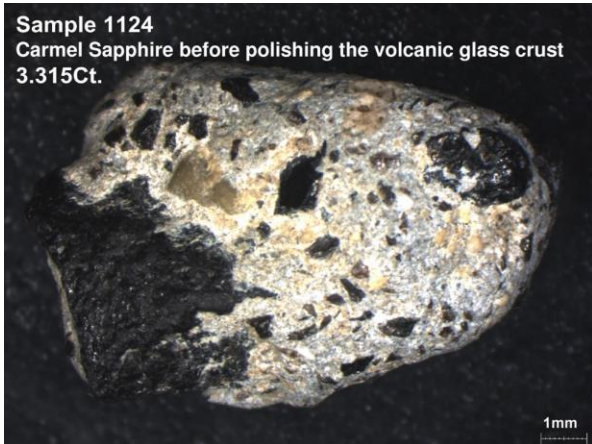


Figure 52c: Carmel Sapphire crystal with volcanic
glass crust - found in Bulk Sample SY-1124



Figure 52d: Carmel Sapphire after removal of the
volcanic glass crust and a basic polish

12.2.2 Classification

Shefa Yamim has made good progress in its sampling programme, but the samples were not of a sufficient size to be considered truly representative or spaced close enough to demonstrate grade continuity to allow any of the exploration targets in the permit areas to be considered for classification in terms of SAMREC.

12.3 Creo Comments

Creo considers that the quality of the drilling, sampling, sample preparation and sample handling to be of a high standard. However, the quantity of drilling and in particular the sampling is insufficient to delineate a Mineral Resource to the level of confidence required by SAMREC to classify any of the Shefa Yamim exploration targets as Mineral Resources. Both the Zone 1 and Zone 2 areas in the Mid Reach section of the Kishon River valley are

approaching an Inferred Mineral Resource classification and a few well-placed large bulk samples will provide the confidence in grade and grade continuity needed for this classification. Zone 2 (bulk sample SY-982 area) is also to be considered since it has a similar level of development as seen in Zone 1.

This cautionary approach in the declaration of mineral resources and mineral reserves is a consequence of the inability to predict even over short distances the extent and grade of the deposit due to the complex sedimentological controls of the mineralisation and the correct interpretations thereof. Fluvial deposits, by nature, are notorious for their absence of lateral continuity. The approach used by Creo to derive at these conclusions is generally considered to be appropriate to these types of deposits and are in line with generally accepted norms and standards.

Creo considers there to be a fair potential for the delineation of Mineral Resources and Mineral Reserves following ongoing exploration and development. The Shefa Yamim exploration programme includes an annual revolving drilling and sampling budget to investigate the extensions to known DMCH deposits inside and outside of the currently defined exploration area.

13. CONCLUSIONS AND RECOMMENDATIONS

Creo Ltd has completed a CPR at the request of Shefa Yamim (A.T.M.) Ltd. regarding the Shefa Yamim Mineral Exploration Project in northern Israel, using all available data up to August 2017. Shefa Yamim is currently in an advanced stage towards a definition of its first Mineral Resource in the Kishon River Mid Reach Multi-Commodity Placer. This target area is being developed in parallel with encouraging exploration advances achieved at the kimberlitic sources (primary sources for gem minerals) on Mt. Carmel and along the Lower Galilee valleys' margins.

Creo is of the opinion that Shefa Yamim's exploration projects are managed by professionally skilled and technically competent personnel. A comprehensive and well-managed work programme covers aspects ranging from mapping, drilling and sampling in the field to the final recovery and identification of minerals at a laboratory. Shefa Yamim has a well-equipped operational centre at Akko, which houses a state-of-the-art treatment facility and laboratory. Due to the recent progress of the company whereby its exploration campaign has advanced to the evaluation phase, it upscaled the operational capacity to facilitate the treatment of large samples. A range of exploration and evaluation techniques, which are not only universally applied, but are tested and proven in mineral exploration have, and continue to be employed by Shefa Yamim.

The company's exploration programmes are designed and managed according to SAMREC principles and aligned to international standards for responsible reporting of exploration results, mineral resources and mineral reserves. The programmes and methodology are continually assessed by an international team of experts specialising in mineral exploration and precious stones to ensure compliance with the reporting code. By adhering to first principles of exploration and applying a systematic approach, programmes have been designed to improve confidence in results and lower risks and uncertainties. In keeping with transparency and integrity, Shefa Yamim's geological models, based on exploration results, are presented to the science-based fraternity for peer review at conventions, conferences, through publications and collaborations with renowned earth-science specialists at various universities.

Exploration advances during the last 18 years are highlighted in Figs. 51 to 52.

Based on the work to date, Creo considers the data collection procedures applied during the sampling phase appropriate and the sample database suitable for resource estimation and work can progress on this level. Creo believes that the drilling, pitting and bulk sampling done

in the target area are close to being sufficient for delineating an inferred mineral resource. However, insufficient bulk sampling in terms of sample volume and sample spacing prohibits resource classification at this stage. Shefa Yamim at this point devotes its resources on targets with low risk, high confidence and high project value, but which at the same time require high input. Through a process of elimination, the company focuses on smaller target areas with high returns (Fig. 53).

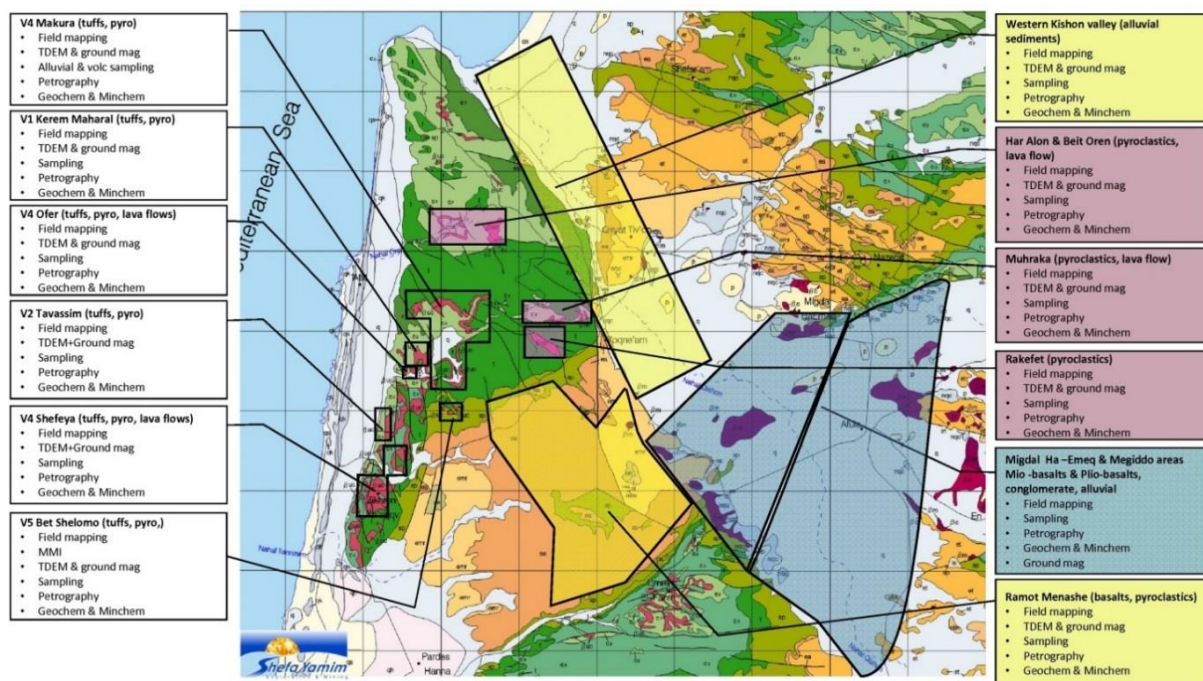


Figure 53: Main milestones achieved in Exploration and prospecting areas volcanic bodies on Mt. Carmel and the Kishon catchment.

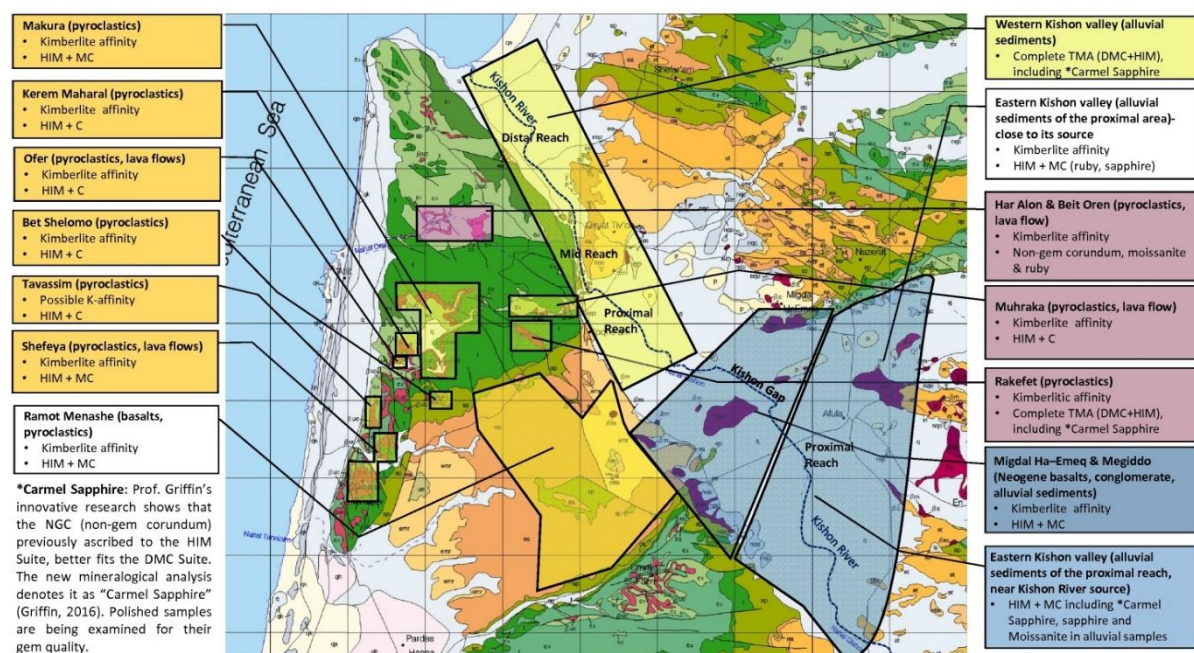


Figure 54: Mineralogical results in Exploration and prospecting areas volcanic bodies on Mt. Carmel and the Kishon catchment

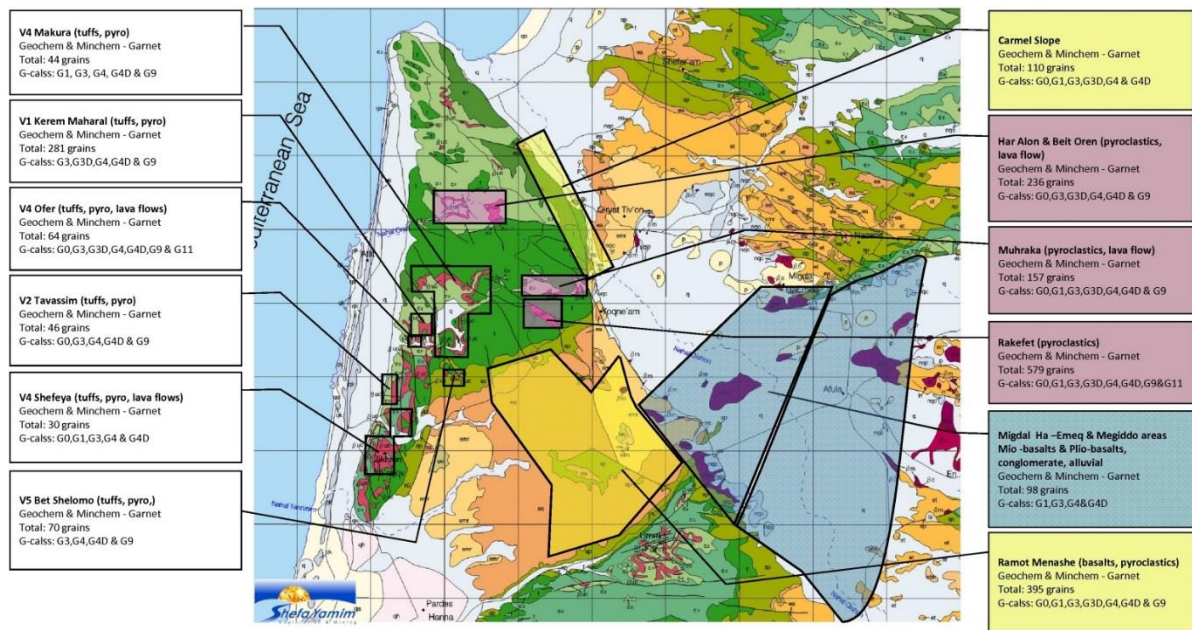


Figure 55: Geochemical analysis throughout the Exploration and Prospecting areas; focus on garnet chemistry.

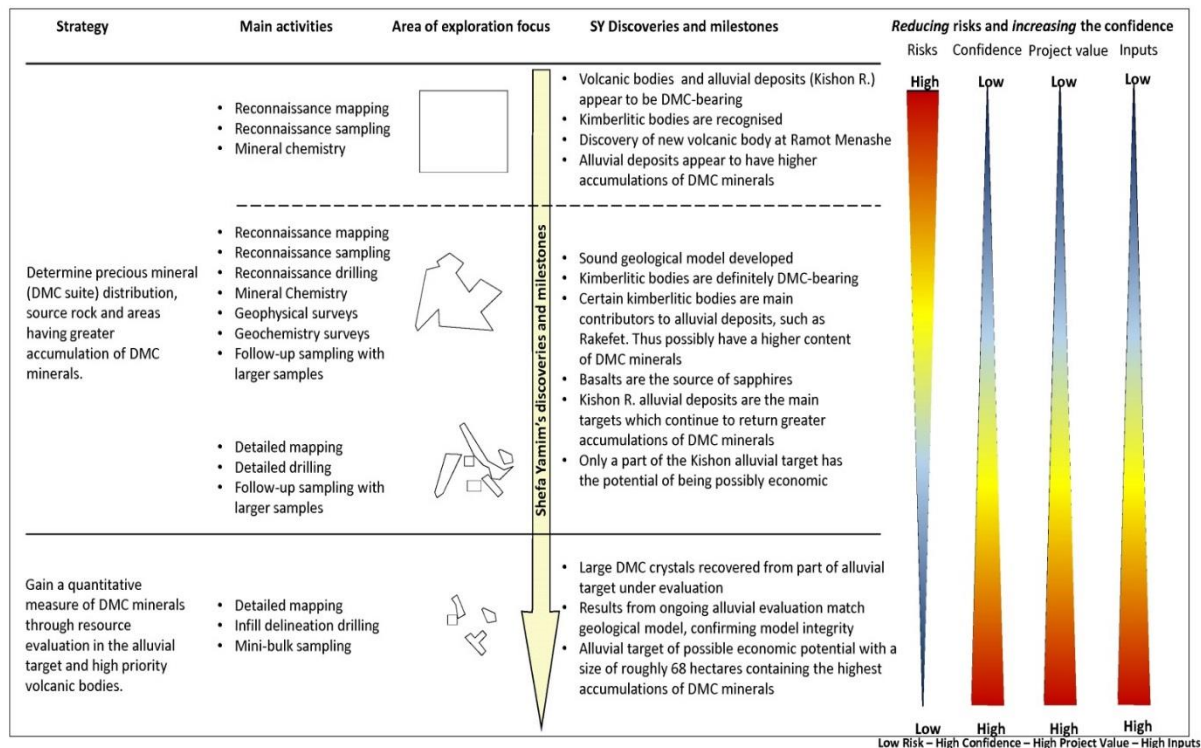


Figure 56: Reducing risk and increasing confidence levels of Shefa Yamim's exploration project, including main milestones.

Bulk sampling data and the 3D modelling undertaken indicate that mineralisation may extend in a down-valley direction and substantial scope exists to extend a potential resource in the rest of the Mid Reach and also the Distal Reach. Infill and extensional drilling will

improve the geological as well as the resource confidence in the areas currently identified as targets north of boreholes SY-110 to SY-137 (Zone 1) area of the Mid Reach. Results obtained to date show very encouraging gemstone yield data and a very extraordinary gemstone assemblage. Here the outstanding features of the gemstone assemblage in the target area is the unusual large variety of precious stones present, the high quality of the stones seen in the deep red rubies, dark blue sapphires, exceptionally large moissanite crystals and good clarity diamonds. Most significantly is the high gem stone grade in the deposits where it makes these deposits very attractive from a gemstone yield perspective. This, together with the favourable stripping ratio, renders this deposit potentially economically mineralised with good prospects for economic extraction of a great variety of high-value gemstones.

Creo recommends the following:

❖ Future drilling campaigns should focus on the following areas:

- The drill programme of the boreholes SY-110 to SY-137 area should be extended northward with a drill spacing of 100m to define additional targets and possibly resources, with the main goal of the programme to establish the true strike length and width of the deposit in the Mid Reach and delineate additional tonnes that can be included in a preliminary economic assessment (PEA).
- Drilling in the SY-65 to SY-137 area should extend to the west across the present-day Kishon River to the western edge of the floodplain

❖ Future bulk sampling should focus on the following:

- To increase bulk sample volumes by extracting bulk samples of statistical meaningful sizes.
- To generate high-resolution valley-floor contour maps that would improve the site selection process for future bulk samples.
- The resource model of the boreholes SY-65 to SY-109 area is currently supported by borehole data with only limited pit and bulk sample data. Creo considers this area as high priority targets for bulk sampling that should be conducted to the north of sample 1124 to establish grade and demonstrate grade continuity.
- For the 1st stage processing of bulk samples, in-field processing of the samples should be considered using a scalping screen to remove the boulder and cobble size gravel from the sample to optimise efficiency and minimise cost and time.

❖ Future sample processing should focus on the following:

- Consideration should be given to focus only on the size fraction of gem stones with economic significance by discarding the size fraction below the commercial size fraction for gem stones.
- An assessment of the commercial minerals should be done and an executive decision should be taken on what minerals to target and what minerals to discard.

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15. DATE AND SIGNATURE PAGE

Johan Hattingh

I, Johan Hattingh of Stellenbosch, South Africa, do hereby certify that as the author of this Independent Technical Report on the Shefa Yamim (A.T.M.) Precious Stones Project at Mt. Carmel, Northern Israel, dated August 2017, hereby make the following statements:

I am a Principal Resource Geologist with Creo Design (Pty) Ltd. with a business address at Unit 17, 9 Quantum Street, Techno Park, Stellenbosch, South Africa. I am a graduate of Stellenbosch University (B.Sc., 1985; B.Sc. Hons., 1988) and University of Port Elizabeth (M.Sc., 1992; Ph.D. Geology, 1996).

I am a member in good standing of the Geological Society of South Africa and I am registered with The South African Council for Natural Scientific Professionals (Registration #400112/93).

I have practiced my profession in the mining industry continuously since graduation.

I did visit the property during 2006, 2007 and again in November 2015.

I have read the definition of “Qualified Person” set out in SAMREC and certify that, by reason of my education, affiliation with a professional association (as defined in SAMREC), and past relevant work experience, I fulfil the requirements to be a “Qualified Person” for the purpose of SAMREC. My relevant experience with respect to resource modelling includes 23 years’ experience in the mining sector covering exploration geology, mine geology, grade control, and resource modelling. I was involved in numerous projects around the world in both base metals and precious stone and metal deposits.

I am responsible for the entire content of this technical report titled “Independent Technical Report on the Shefa Yamim (A.T.M.). Precious Stones Project at Mt. Carmel, Northern Israel, dated August 2017”.

I have no prior involvement with the property that is the subject of this Technical Report. As of the date of this Certificate, to my knowledge, information, and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Signed and dated this 5th day of October 2017.



J. Hattingh

Ph.D. Geology, Pr. Sci. Nat.

Lourens J Erasmus

I, Lourens J. Erasmus of Somerset West, South Africa, do hereby certify that as the reviewer of this Independent Technical Report on the Shefa Yamim (A.T.M.) Precious Stones Project at Mt. Carmel, Northern Israel, dated October 2017, hereby make the following statements:

I am a Principal Geologist with Creo Design (Pty) Ltd. with a business address at Unit 17, 9 Quantum Street, Techno Park, Stellenbosch, South Africa.

I am a graduate of Stellenbosch University (B.Sc., 1984; B.Sc. Hons., 1985, MBA, 2008) and UNISA (B Com 1995).

I am a member in good standing of the Geological Society of South Africa and I am registered with The South African Council for Natural Scientific Professionals (Registration #400040/91).

I have practiced my profession in the mining industry continuously since graduation.

I was involved in numerous projects around the world in both base and noble metals and precious stone.

I have no prior involvement with the property that is the subject of this Technical Report. As of the date of this Certificate, to my knowledge, information, and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Signed and dated this 5th day of October 2017.

A handwritten signature in black ink, appearing to read 'L. J. Erasmus', with a large, stylized initial 'L'.

L. J. Erasmus

Hons B Sc (Geology), B Com, MBA (USB), Pr. Sci. Nat, MGSSA

CURRICULUM VITAE

❖ JOHAN HATTINGH

PERSONAL DETAILS

Surname	:	Hattingh
Christian Names	:	Johan
Date of Birth	:	25 May 1963
I.D. Number	:	630525 5122 084
Nationality	:	South African

Personal:

- Married to Ertru Gauche in 1990
- Two daughters
 - Naomi (1994)
 - Magdaleen (1997)
- One son
 - Hendrik Vos (2004)

EDUCATIONAL QUALIFICATIONS

Schooling:

Paul Roos Gymnasium, Stellenbosch - 1982

University Qualifications:

B.Sc. University of Stellenbosch	1985
B.Sc. (Hons.) University of Stellenbosch	1988
M.Sc. University of Port Elizabeth	1992
Ph.D. University of Port Elizabeth	1996

Professional Career:

Geologist at the Geological Survey of S.A. Regional office in Port Elizabeth involved in research on distribution of heavy minerals in natural river systems.
(1989 - 1993)

Senior Geologist at the Geological Survey Regional office in Port Elizabeth involved in research on distribution of heavy minerals in natural river systems.

(1993 - 1994)

Principal Geologist at the Council for Geoscience Regional office in Port Elizabeth employed as consulting geologist - consulting to various mining companies in Africa.

(1994 - 1997)

Senior Exploration Geologist at Trans Hex Reuning Mine - responsible for management of mining projects and exploration projects.

(1998 - 1999)

Chief Executive Officer of Creo Design (Pty) Ltd - responsible for management of Creo following the retirement of Dr H.V. Hattingh who managed the company as a mechanical engineering design and manufacturing company since 1978.

Converted Creo to an exploration and mine management services company, mainly providing professional services to the mining industry such as geological, mine engineering and metallurgical services, mine planning risk analysis, exploration planning, management and equipment design and installation.

(1999 - present)

Professional Affiliations:

Member of: The Geological Society of S.A.

The Sedimentological division of the GSSA

The Southern African Society of Quaternary Research

The South African Association of Geomorphologists

Registered with the S.A. Council for Natural Scientific Professions

Major Projects:

- Chamber of Mines placer research project
- Geological mapping of the Karoo (1:50 000 scale)
- Geological mapping of the Sundays River alluvium (1:10 000 scale)
- Palaeoflood studies in all major river systems in Southern Africa
- Diamond exploration in the Central African Republic
- Pre-feasibility study for diamond mining operations in the Democratic Republic of Congo
- Exploration & Mine evaluation, risk analysis and commissioning of Denver Quarries, Port Elizabeth and developed it into the largest aggregate supplier in the Eastern Cape.

- Exploration and production manager for the Reuning diamond mine of Trans Hex Mining Ltd.
- Chief Executive of Creo Design (Pty) Ltd responsible for management, strategic planning and new business.
- Geological consulting (base metals and diamonds) to mining companies and Industrial Development Corporation
- Director and Exploration Manager for Lehumo Resources Ltd Nickel project
- Project Manager for Namagroen offshore diamond mining
- Technical Director on the Board of Otjozondo Mining (Pty) Ltd
- Technical Director on the Board of Aquarella Mining (Pty) Ltd
- Technical Director on the Board of Aranos Gas (Pty) Ltd

Publications:

- 12 articles in international scientific journals
- 2 contributions to books published by: Wiley & Sons, London and Grahamstown University Press

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Profile

An **Exploration and Regional Exploration Manager and Consultant** who has made significant contributions on several diverse projects for several major resource companies across Southern and Eastern Africa, the Middle East, and Central and West Africa during a career spanning almost 30 years. These projects needed high levels of skill, innovation, leadership, and self-motivation under sometimes challenging conditions.

Proper management of all aspects of exploration and drilling contractors (diamond, also with down-hole motors, RC and percussion drilling) were of the essence.

Experienced in gold mines and gold exploration (Wits and Greenstone), base metals (Ni, Cu, Co), on and off-shore diamonds, as well as layered intrusions (platinum group elements in the Bushveld Igneous Complex, SA), in Africa and the Middle East as well as Heavy Mineral Sands in Sri Lanka.

Have been involved in target generation and business development proposals, advised on feasibility studies and investigating and advising on JV opportunities.

Was also involved as Exploration Manager, gold, on and off-mine in Guinea and before that Exploration Manager (Base metals, Copperbelt), off-mine, as well as green- and brownfields projects in the DRC.

Currently a Geological Consultant on mainly exploration and grassroots projects in Southern Africa (Cu and diamonds) and Australia (Au).

Employment Summary

Permanent Employment

May 2014 – currently	Geological Consultant – Exploration (Green- and Brownfields)
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AngloGold Ashanti

August 2012 to October 2013	Exploration Manager – Gold Exploration - Guinea (retrenched in October 2013 due to restructuring, budget cuts and the suspension of projects)
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ENRC

September 2011 to August 2012	Exploration Manager – Base Metal Exploration (Copperbelt – DRC)
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Albidon Ltd

April 2007 to February 2009	Regional Exploration Manager - Base Metal Exploration (Southern and Eastern Africa) (Retrenched in Feb 2009 due to financial constraints)
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Anglo Platinum Corporation

August 2002 to March 2007

Senior Project Geologist – PGE Exploration (Bushveld Complex)

BHP Minerals International Exploration

November 1998 to June 1999

Manager - Copperbelt – Base Metal Exploration (Namibia and Botswana). Retrenched due to BHP's decision to terminate all exploration activities in Africa.

Anglovaal Minerals (AVMIN)

1996 to 1998

Senior Exploration Geologist – Base Metal Exploration (Namibia)

1993 to 1996

Senior Exploration Geologist – Ni and PGE Exploration (Barberton, South Africa)

1991 to 1993

Senior Exploration Geologist – Wits Gold Exploration (Northern Free State, South Africa)

Anglo American Corporation

January 1988 to December 1990

Staff Geologist – Gold Mining – Vaal Reefs (Orkney, South Africa)

Contract Appointments

February 2009 to Aug 2011

Principal Geologist (SRK) and Project Geologist – Gold Exploration (Thani Investments), Project Generation and Evaluation (Middle East)

June 2002 to July 2002

Exploration Geologist – PGE Exploration (Western Bushveld Complex, South Africa)

February to October 2001	Exploration Geologist – PGE Exploration (Eastern Bushveld Complex, South Africa)
July to December 2000	Senior Offshore Geologist – Diamond Exploration (Namibia)
February to May 2000	Exploration Geologist – PGE Exploration (Eastern Bushveld Complex, South Africa)

Employment History

Permanent Appointments

AngloGold Ashanti (Exploration)

August 2012 to October 2013: Exploration Manager (HOD) – Gold Exploration – Siguiri Gold Mine, Guinea (retrenched due to restructuring, budget cuts, and the suspension of projects)

- Monitor and control drilling and sampling performance to be compliant with AGA standards and within acceptable drilling production efficiency (minimum monthly, more frequently if problematic trends are noted)
- Co-ordinate Exploration, community relations and drilling activities to evaluate targets efficiently.
- Implement Development Plans for High Potential employees in the Exploration Department as per schedule on each individual plan.
- Motivate and inspire co-workers to achieve their potential.
- Compiling annual departmental budget and monitor compliance to budget by monthly cost forecasting and control of expenditure.
- Produce a resource ounce pipeline to extend the life of mine beyond the current forecasts.
- Develop an exploration strategy to explore the oxide as well as the sulphide potential of firstly Mining Block 1 and then the rest of the mining licenses to achieve the company's goals and expectations.

Main Achievements

- Building an Exploration Department from people with diverse skills and backgrounds to handle a medium to large size exploration programme with success.

ENRC (Exploration)

September 2011 to August 2012: Exploration Manager (HOD) – Base Metal Exploration – Copperbelt (Kakanda)

- Coordinate and manage exploration activities on and off-mine in remote areas and motivate staff to ensure a cost-effective operation.
- Interpretation of new and existing data for future brownfields planning and exploration.
- Contractor management - manage contractors such as drilling contractors, soil sampling contractors and drill road and drill site construction contractors)
- Provide practical leadership to ensure that employees and contractors adhere to site safety standards that exceed world industry standards and any applicable legislation.
- Responsible for ensuring the highest standards for performance in the areas of safety, environment and community affairs.
- Produce Monthly, Quarterly and Annual Exploration reports

Main Achievements

- Managing a variety of prospects in different structural settings on the mine and in remote areas successfully.
- First to recognise elevated Ni values in boreholes and grab samples at Menda, which lead to a large-scale exercise to locate this in historic holes and the modelling of the new resource.

Albidon Ltd (Exploration)

April 2007 until February 2009: Regional Exploration Manager - Base Metal Exploration (Southern and Eastern Africa) (Cape Town)

- Have a key role in driving the strategy to achieve the discovery and development of economic nickel sulphide deposits in sub-Saharan Africa.

- Provide key technical and logistical management of Albidon's portfolio of Southern and Eastern African projects and provide high-level technical supervision of all programmes run from the Cape Town Office.
- Responsible for identifying and nurturing new project opportunities through project generation and JV proposals.
- Responsible for mentoring and coaching of exploration personnel based in Cape Town.
- Responsible for the day-to-day running of the Cape Town office, including primary management of all staff-related issues with appropriate consultation with the Company's HR officers and the General Manager Exploration.
- Responsible for ensuring the highest standards for performance in the areas of safety, environment and community affairs.

Main Achievements

- Achieving the greater part of the objectives on a skeleton staff compliment.

Anglo Platinum (Exploration)

August 2002 to March 2007: Senior Project Geologist - PGE (Rustenburg)

- Fully responsible for the implementation of planned exploration and structural drilling programmes.
- Supported by contract geologists for the logging, sampling and capturing of approximately 15 000m to 22 000m of drilling per month, and almost 190 000m for the whole project.
- Liaise with drilling and mining contractors, suppliers of earth moving equipment, environmental consultants and the local community.
- Trenching and initial underground sampling.
- Progress and exploration reports.

Main Achievements

- Responsible for drilling and processing of almost 190 000m of core in one year with 4 drilling contractors and 27 machines at peak production.

BHP Minerals International Exploration

December 1998 to June 1999: Senior Project Geologist - Manager – Copperbelt – Base Metals (Namibia and Botswana) (Cape Town)

- Accepted full responsibility for four different projects with a total budget of R7.9 million, covering an area of over 4.3 million hectares.
- Liaised with various disciplines (geophysics, geochemistry and support functions)
- Meaningfully directed the respective programmes, target generation, and budget control.
- Responsible for a team of two geologists and a technical assistant.

Main Achievements

- Recognised the most prospective areas early on and confirmed this with a more detailed analysis.
- Invented a unique system to compare favourable areas.

Anglovaal Minerals (AVMIN)

March 1996 to November 1998: Senior Exploration Geologist – Base Metals (Windhoek Exploration Office)

- Researched and prepared the ground and activated a grass-roots exploration programme incorporating all the different exploration tools.
- Jointly responsible for grass-roots exploration in an area covering over a million hectares in Northern Namibia.
- Integrated geophysical information (magnetic, electro-magnetic and radiometric data), geology, Landsat imagery and aerial photographs to find economic mineral deposits.
- Liaised with government, farmers, and experts in various relevant fields.

Main Achievement

- Ensured a solid foundation for uninterrupted exploration activities in a sometimes-uncooperative farming community. This eventually led to the discovery of the Otjikoto Gold Mine.

July 1993 to March 1996: Senior Exploration Geologist – Nickel (Barberton Exploration Office)

- Co-ordinated and directed part of a feasibility study on a layered intrusion.
- Liaised with drilling contractors
- Managed the analysing and processing of the core to help solve the structure and creating a geological model.

Surface mapping; planning and budgeting of boreholes; core logging and sampling; capturing of data onto Sable; assisting in grade and ore reserve calculations; general drilling contracts and borehole management; compilation of monthly accounts and compilation of geological reports.

Main Achievements

- Recognised thrusting in the ore body.
- Jointly responsible for solving the structure of the complex.
- Created a model for the emplacement of a massive sulphide body and suggested areas for exploration based on that model.
- Detail logging and processing of 23 000m of core in about 16 months.
- Trained five geologists in a short space of time to conduct core logging and processing according to set guidelines.

January 1991 to June 1993: Senior Exploration Geologist - Gold (Klerksdorp Exploration Office)

- Responsible for certain boreholes on the Sun-South Project, North of Allanridge.
- Planning and budgeting of boreholes;
- Logging and sampling of core and the capturing of data onto Sable;
- Calculating and plotting of surveys and stratimetric surveys;

- General core management;
- Sedimentology projects;
- Compilation of structure plans;
- Responsible for editing/checking of all Sun-South boreholes.

Anglo American Corporation Ltd

January 1988 to December 1990: Staff Geologist (Mining) - Gold (Vaal Reefs Gold Mine, Orkney)

- Responsible for the initial mapping on a new shaft system and the geological information on a fully productive section.
- Sedimentology; structural interpretation; underground mapping; the updating of plans and report writing; attending planning meetings and advising management on the effect of geology on mining operations.
- From April 1988 to June 1990, was actively involved in the sinking of a new shaft system (10 Shaft) on the mine and from January to December 1989, was solely responsible for all underground development, reef drives, sampling and shaft mapping on 10 Shaft (mechanised mining – VCR).
- From July to December 1990, along with an assistant, was responsible for 800 – 900m of development per month, the accompanying stope faces and underground drilling with a R100 000/month budget on a production shaft (9 Shaft – conventional mining – Vaal Reef).

Main Achievement

- Mapped two sinking shafts on a 24-hour callout basis under dangerous circumstances, whilst continuing with normal duties.

Contract Appointments

February 2009 to September 2011: Principal Geologist – Exploration - Gold, Assistant Database Manager and Project Generation (SRK and Thani Emirates Resource Holdings) (Yemen, and subsequently Dubai)

- Responsible for exploration programme
- Target generation and business development
- Proposals
- Advise on feasibility studies
- Investigate and advise on JV opportunities

February to October 2001: Exploration Geologist – PGE (GeoActiv Geological Consultants) (Eastern Bushveld Complex)

- Drill rig management.
- RC drilling.
- Logging and sampling of core and the digital capturing thereof.
- Responsible for database management
- Compilation of structural plans.

July to December 2000: Senior Offshore Geologist Exploration – Diamonds (Namco Namibia) (Cape Town)

- Responsible for time allocation in the use of an offshore exploration vessel in accordance with guidelines lay down by the exploration office.
- Liaison with the exploration office, the bridge and plant personnel.
- Directing, co-ordinating and taking responsibility for the recording of geological information and all geological activities and personnel on board.
- Overall data interpretation.
- Daily and feature reports.

February to May 2000: Exploration Geologist – PGE (GeoActiv Geological Consultants) (Carletonville)

- Handling the digital capturing of historic borehole data to reassess the economic viability of a previously abandoned PGE prospect in the Eastern Bushveld Complex. Field visits were conducted and drill core inspected.

Educational Qualifications

Full time:

- **Wennie du Plessis High School 1977 to 1981**
Gobabis, Namibia
Matriculated with Exemption
(Afrikaans, English, German, Science, Mathematics, Geography)
- **University of Stellenbosch 1982 to 1985**
B.Sc. Geology 3, Geochemistry 3, Hons (Geology)
(Gencor – prize: Best 3rd Year Geology Student) (1984)

Part time:

- **University of South Africa 1990 to 1995**
B Com, with Economics 3, Business Economics 3, Transport Economics 3.
- **University of Stellenbosch Business School 2005 to 2008**
MBA (Modular). Title of thesis: A model for evaluating risk in Africa: A mining perspective.

- **Further Company Courses:**
 - **Conflict Resolution** (May 1988)
 - **Advanced Supervision** (October 1988)
 - **Advanced Lotus 1-2-3** (1989-1990)
 - **Diamond Drilling Practice** (November 1990)
 - **Sedimentology Workshop** (February 1991)
 - **Introduction to Geostatistics** (May 1995)
 - **Quattro Pro for Windows** (October 1993)
 - **Introduction to Datamine** (February 1995, 2004)
 - **Sampling in the Mining Industry** (May 1995)
 - **Geophysics for Exploration Geologists** (July 1997)
 - **Introduction to Arcview GIS** (October 1997)
 - **Isotope Geochronology** (November 1997)
 - **Platinum and related Mineral Deposits** (February 2000)
 - **Basic Survival at Sea** (July 2000)
 - **Arcview GIS for Geoscientists** (August 2000)
 - **Techno-economic Evaluation of Mineral Projects** (May 2006)
 - **Exploration Project Management for Geologists and the JORC code** (May 2008)
 - **Magmatic Ni-Cu-PGE sulphide deposits in Africa: genesis and exploration** (July 2008)
 - **Mining Exploration Feasibility Studies and Project Implementation Conference** (August 2008)
 - **Geosoft Target for ArcGIS** (November 2008)
 - **AngloGold Ashanti Managerial Leadership Practices (MLP)** (August to November 2012)
 - **Certified Incident Investigator** (June 2013)
- **Additional Information:** My computer experience is as follows:
 - I am experienced in MS Office.
 - I have used SABLE and Gbis extensively.
 - I have used ArcView GIS

General

Membership of Professional Bodies	I am registered as a Professional Natural Scientist with SACNAS and a member of the GSSA.
References	<p>Dr Hennie Theart, Principal Geologist and Partner, SRK, Johannesburg, Cell: 082 210 4499, e-mail: htheart@srk.co.za</p> <p>Mr Keith Minty, COO, Thani Emirates Resource Holdings, South Africa Cell: +27 72 969 4971</p>

Appendix I

GIA REPORT

Record-Size Natural Moissanite
Crystals Discovered in Israel



GIA®

Record-Size Natural Moissanite Crystals Discovered in Israel

Author: Emmanuel Fritsch, Vered Toledo, and Antoinette Matlins



Figure 1. The largest known natural moissanite crystal, found along the Kishon River in north-eastern Israel, measures 4.1 mm in its longest dimension. Photo by Vered Toledo.

Synthetic silicon carbide (SiC) is well known in the gem and jewellery market as synthetic moissanite. Natural SiC is very rare and has been found as tiny crystals (usually less than 1.5 mm) in only a few deposits worldwide (Y. Bauer et al., “Moissanite from middle mountains of Czechoslovakia,” *International Geology Review*, Vol. 7, No. 7, 1965, pp. 1194–1206; A.A. Shiryaev et al., “Moissanite (SiC) from kimberlites: Polytypes, trace elements, inclusions and speculations on origin,” *Lithos*, Vol. 122, No. 3–4, 2011, pp. 152–164, and references therein).

Over the past 14 years, however, more than 2,500 crystals of natural moissanite have been discovered by Shefa Yamim, an Israeli exploration and mining company. The crystals come from primary and alluvial deposits along the Kishon River, near Haifa in northern Israel. Shefa Yamim began prospecting in this area following the 1988 prophetic statement of the Lubavitcher Rebbe that “precious stones and gems” would be discovered in the valley next to Haifa (see video at http://youtu.be/_uzY5mV8rdY). In 2000, the company unearthed moissanite crystals ranging from 0.1 to 1 mm in size; two years later, 2.2 mm crystals were found. In 2009, a 3.5 mm moissanite discovery set a world record, only to be surpassed in August 2012 by a crystal measuring 4.1 mm—the largest specimen to date (figure 1 and <http://goo.gl/JZFiwe>).

There is evidence of even larger crystals, as many broken crystals were discovered. Some crystals have also been found *in situ* in the volcanic rock of the Rakefet magmatic complex, one of the magmatic bodies of Mount Carmel, just southeast of Haifa, which is drained by a small tributary to the Kishon River.

We studied 30 Israeli crystals ranging from less than 1 mm to 3.5 mm. All were identified as moissanite ($\text{SiC } 6\text{H}$) by Raman spectroscopy. Their morphology was hexagonal, bi-pyramidal to platy, with the pinacoid generally present (figures 2 and 3). The crystals were often broken, particularly the larger ones with rounded, shiny surfaces (again, see figure 1). As shown in figure 3, the crystals were transparent and ranged from deep blue (the most common colour) to light green. Except for size, these characteristics are like those of other natural moissanites documented in the literature. The crystals are often associated with small bits of creamy white or red complex matrix.

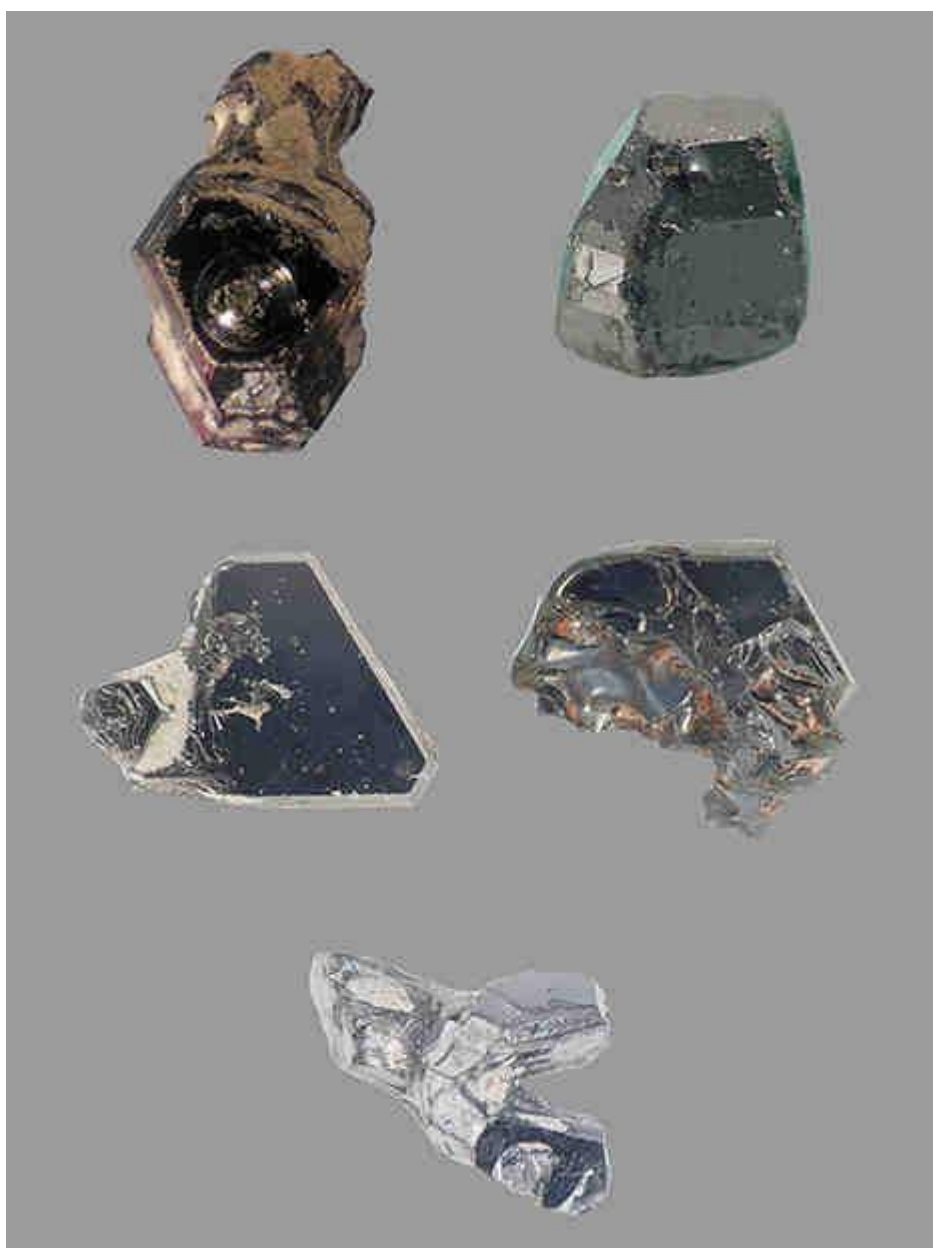


Figure 2. These natural moissanite crystals are hexagonal to pyramidal, showing rounded areas that may result from either growth or dissolution. The crystals range up to 2.5 mm (not to scale). Composite photo by Aurélien Delaunay.

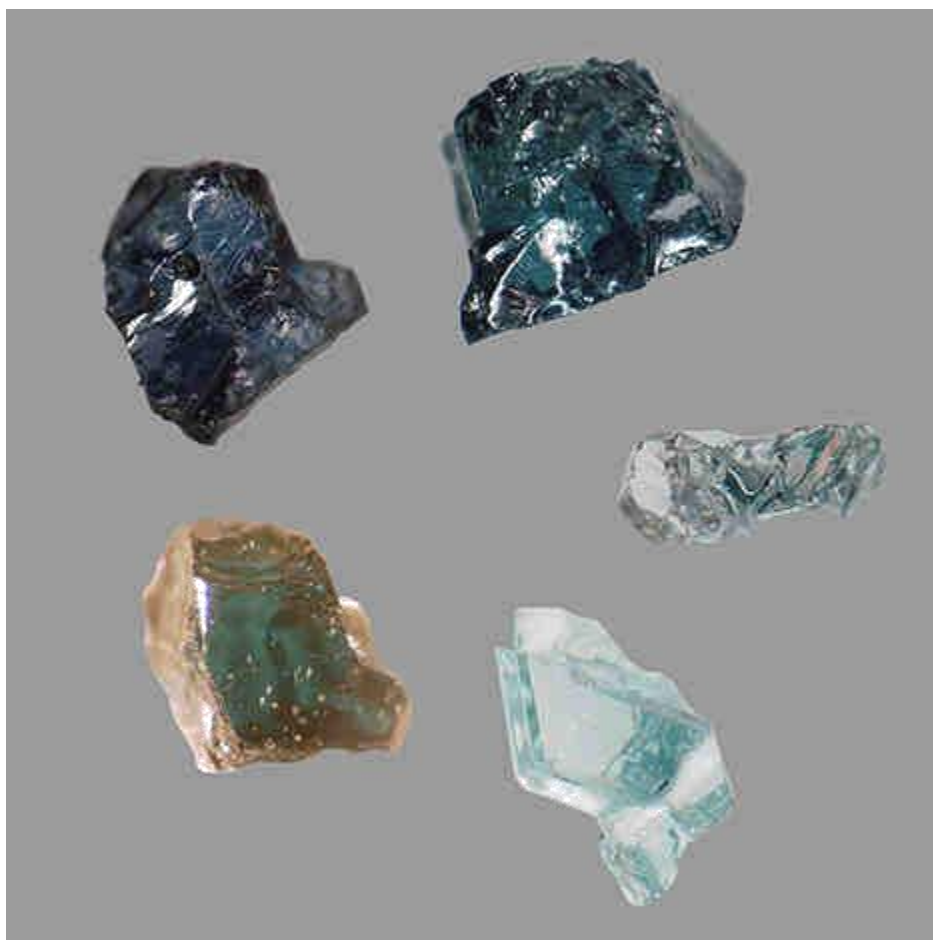


Figure 3. The colors seen in moissanite from the Mount Carmel area of northern Israel range from dark blue to light green. Note the broken or rounded morphology. Composite photo by Aurélien Delaunay.

The crystals we examined were inert under long- and short-wave UV radiation, apart from five small green to light green samples. In these five specimens, medium to strong orange luminescence was seen under either long- or short-wave UV. These were found to be magnetic when placed next to a powerful permanent alnico magnet. All the samples contained small metallic inclusions, the largest approximately 30 microns in size, which could be the source of magnetism. We will continue to follow moissanite exploration in this area, and a more in-depth research paper is forthcoming.

ABOUT THE AUTHORS

Emmanuel Fritsch (Fritsch@cnr-imn.fr) is a professor of physics at Institut des Matériaux Jean Rouxel (IMN), University of Nantes (France). Vered Toledo is the CEO of Shefa Yamim in Akko, Israel. Antoinette Matlins is a renowned gem and jewellery expert, author, and lecturer based in Woodstock, Vermont.

Appendix II

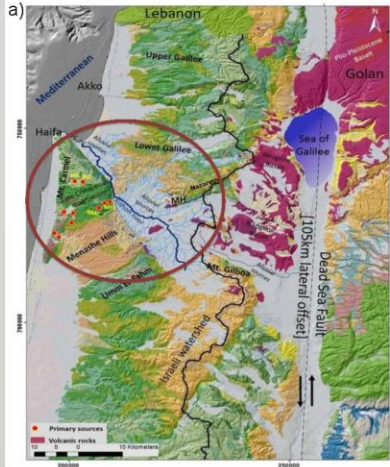
Heaven on Earth

Poster on high pressure minerals from the Shefa Yamim permit areas

Heaven on Earth: The Cretaceous mantle beneath Lower Galilee, Israel

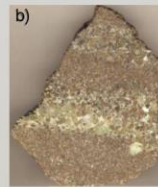
W.L. Griffin¹, S.E.M. Gain¹, D.T. Adams¹, V. Toledo², N.J. Pearson¹ and S.Y. O'Reilly¹

1. ARC Centre of Excellence for Core to Crust Fluid Systems, and GEMOC, Macquarie University, NSW 2109, Australia 2. COO, Shefa Yamim Ltd., Akko, Israel



Introduction

Shefa Yamim's exploration for gem and heavy minerals in the Kishon and Zippori River catchments, on Mt Carmel and in the Menashe Hills of northern Israel (a), has discovered an unusual association of xenocryst minerals in volcanic rocks and related alluvial deposits. This includes, *moissanite* (SiC), diamond, zircon, rutile, ilmenite, garnet and corundum (sapphire, ruby and non-gem corundum (NGC)). The NGC contains inclusions of a remarkable



mineral association, crystallizing from trapped melts at the time of the explosive eruptions (b; Cretaceous, 90-95 Ma). Here we report recent results from our work on this remarkable occurrence.

Non-Gem Corundum (Al₂O₃)

- Megacrysts over 1 cm across
- Most are aggregates of smaller grains
- Grain boundaries and cores : 3D network of trapped melts (glass + crystals)

The CL images show:

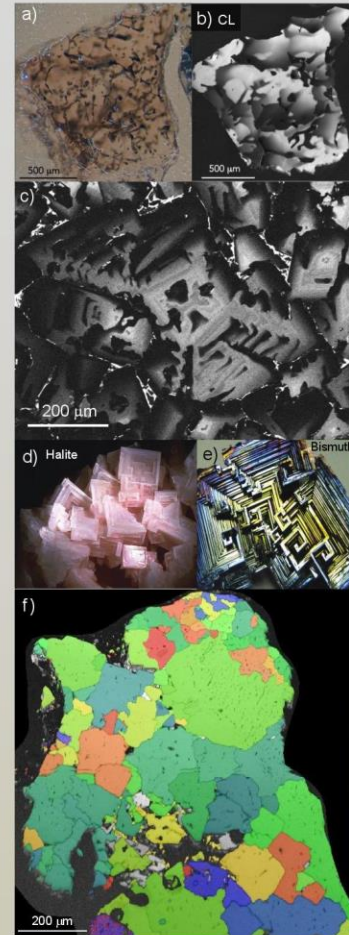
- Darker CL responses correlating with higher concentrations of Ti.
- c) skeletal or hopper crystal growth pattern, trapping melts in cavities within crystals and on boundaries.

Hopper Crystals = Rapid Growth

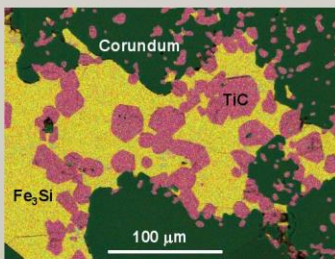
- The crystals (d,e) grow faster along the edges of each face, than they do in the center.
- Therefore there is not enough time, or material, to fill in the gaps.
- Usually form in *supersaturated conditions*, then must *quench*.
- In these corundum crystals the holes are filled with trapped melts; these then crystallized at the time of the eruption.

EBSD image shows:

- Each colour domain consists of crystals (outlined by melt pockets) of similar orientation.
- Areas of different colour have slightly different crystal orientations relative to one another.
- This pattern is typical of hopper growth (c.f. d,e).



Three Immiscible Melts

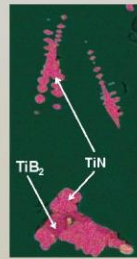


← Type A (alloy) melt pocket.

Note euhedral to rounded faces on corundum. TiC (khamrabaevite) crystallized from Fe-Si-P melt, leaving Fe₃(Si,P)(gupeite). Corundum grew into the crystallizing melt, trapping TiC crystals and pushing the melt into the interstitial space.

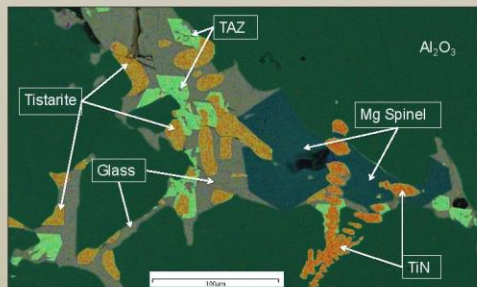
Type N melt trapped in skeletal cavities in corundum →

TiN (osbornite) and TiB₂ (not yet named) appear to be the first melts to segregate and crystallize.



Coexisting Type S and N melts in complex interstitial melt pocket →

Note rounded to euhedral faces of corundum against the melt. Crystallization sequence appears to be TiN → Tistarite (Ti₂O₃) → Mg-spinel → TAZ (Ti₄Al₂ZrO₁₁) leaving Ca-Al-Si-REE glass. TAZ is structurally analogous to panguite (Ti₄Sc₂Al₂Zr₂Mg₂Ca₂O₁₃) but different in composition.

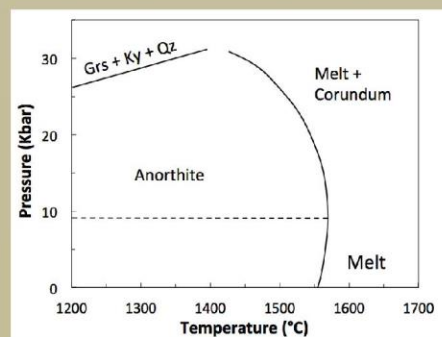
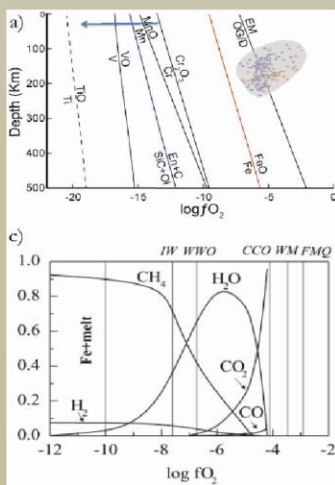


← Oxidation-reduction (redox) reactions control fluid compositions

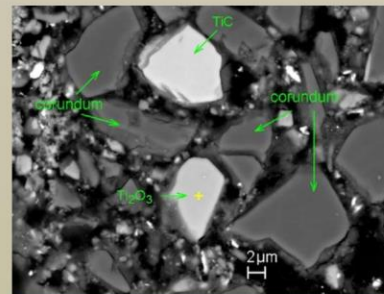
(a) Oxygen fugacity vs depth (at 1500 °C) for some redox buffers; shaded field, range of *f*O₂ in rock samples from the lithospheric mantle; EMOG/D, the buffer reaction Enstatite + magnesite = olivine + graphite/diamond. Blue arrow shows *f*O₂ range of Mt Carmel NGC, extending to nebular *f*O₂.

(b) Speciation in C-O-H fluids as a function of *f*O₂. If the convecting mantle is metal-saturated, deep-mantle fluids are dominated by CH₄+H₂.

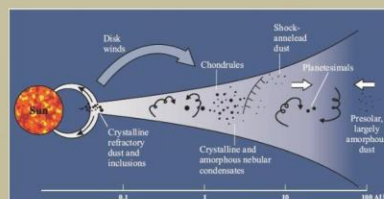
A flux of such fluids, related to mantle upwelling, could produce very reducing conditions in local volumes of the upper mantle.



A Nebular Mineral Assemblage



Tistarite – the only known grain (until now) – found in an Allende chondrule, with TiC and corundum. After Ma & Rossman (2009; Amer. Miner.)



Meteoritic Minerals

• The NGC melt pockets contain an array of phases that also occur in carbonaceous and enstatite chondrites – and several are known *only* from those environments (until now...).

- Tistarite (Ti₂O₃)
- Khamrabaevite (TiC)
- Osbornite (TiN)
- Gupeite (Fe₃Si)
- Hibonite (Ca(Al,Ti)₁₂O₁₉)
- Ti-Barringerite ((Fe,Ti)₂P)
- Moissanite (SiC)
- Wassonite (TiS)
- Mg-Al spinel ((Mg,Al)Al₂O₄)

Refractory condensates like corundum, TiC and tistarite are the Solar system's oldest solids; they formed near the Sun, in a very low-*f*O₂ environment dominated by H₂ – then were blown out to ca 1 AU, where chondrules and chondrites formed.

Where did the NGC form? →

Some Type S melt pockets contain blades of anorthite, consistent with the peritectic reaction corundum + melt → anorthite. This incongruent crystallisation can only occur between 9-29 Kbar (ca 30-100 km depth, and at high T, consistent with the temperatures required by other phases in the melt pockets (Goldsmith, 1980, Amer. Miner.).

Conclusions

Rapid crystallization of corundum from mafic magmas occurred under super-reducing conditions (ln *f*O₂ = IW -8 or lower) at T >1500 °C, in the lithospheric mantle (depths 30-100 km). The very low *f*O₂ implies a flux of CH₄±H₂; we suggest this was derived from the deep mantle, and is directly related to the volcanic processes. This remarkable occurrence holds the keys to understanding a range of mantle processes.

Appendix III

Hibonite

Properties and Terrestrial Occurrence

Hibonite

Properties and Terrestrial Occurrence

Griffin, W. L. (1), Toledo, V. (2), Gain, S.E.M. (1), Huang, J-X. (1)

1. ARC Centre of Excellence for Core to Crust Fluid Systems and GEMOC, Macquarie University, NSW 2109, Australia
2. Shefa Yamim (A.T.M.) Ltd., Akko, Israel

Composition: $\text{CaAl}_{12}\text{O}_{19}$: Al_2O_3 ca 85%, CaO 8% by weight. Substitution of Ce, La, Mg, Fe, Ti, Si, giving $(\text{Ca,Ce})(\text{Al,Ti,Mg,Fe})_{12}\text{O}_{19}$.

Crystal Structure

Hexagonal - Dihexagonal Dipyramidal Space Group: $P 6_3/mmc$

Properties

Cleavage:	{0001} good
Color:	Yellow to red-brown to black.
Density:	3.84
Diaphaneity:	Transparent to Opaque
Fracture:	Subconchoidal
Habit:	Prisms, platy on {0001}, steep pyramids to several cm
Hardness:	7.5-8
Luster:	Vitreous
Refractive index:	1.790-1.807
Streak:	brown
Dichroism (e):	-
Dichroism (w):	-
Optical Data:	Uniaxial (-), $\epsilon = 1.79(1)$. $\omega = 1.807(2)$

The historical background of Hibonite, and its use as a gemstone

The mineral is named after Paul Hibon, who found cm-sized black crystals in a placer deposit in Madagascar in 1953, and sent them to Jean Behier for examination. After further analysis by C. Gillemain at the Sorbonne, it was described as a new mineral in 1956 (Curien et al., Am. Min., V. 42, p. 119).

Later on hibonite was assigned as a common constituent of refractory Calcium-Aluminum Inclusions in meteorites, mainly carbonaceous chondrites. Meteoritic hibonite is blue, and

confined to microscopic grains; it is one of the oldest minerals in the solar system, and may occur in interstellar dust.

Its use as a gemstone has been limited, and largely confined to placer material from Myanmar, which yields transparent yellow crystals up to 1-2 cm across.

Type Locality

The type locality is the Esiva eluvials, Esiva, Maromby Commune, Tulear Province, Madagascar. The type material was probably derived from nearby skarn deposits.

Occurrence

1. Hibonite occurs frequently in thorianite-bearing skarns, which are widespread in Pan-African (565-515 Ma) granulites in belts extending through Madagascar (including the type locality) and Tanzania. At least 20 localities are known in Madagascar, with hibonite crystals up to 10 cm long. It also occurs in xenoliths of Ca-Al granulites brought up in basanites in the Chyulu Hills Volcanic Field in Kenya, also part of the Pan-African belt. In the thorianite-bearing skarns, which form metasomatic lenses in C-Al rich rocks, probably originally anorthosites. Usually early corundum + spinel + scapolite assemblages are altered to anorthite + calcite + scapolite, and hibonite crystallizes at the expense of corundum and spinel. P-T conditions are estimated at 700-800 °C, 3.5 kbar. The crystallization of hibonite implies a very low silica activity and probably high CO₂.
2. Hibonite has been reported as black-brown tabular crystals up to 3 cm across in calcitic marbles from the Tashelga-Malzaskaya region in Siberia. These hibonites are notably high in Fe³⁺, and V-rich minerals (goldmanite, tashelgite, mukhinite....) are found in the same rocks.
3. The Hatrurim formation (formerly known as the "Mottled Zone") is a unique rock complex exposed mainly in the Judean Desert. It was deposited as a thin marine, bituminous chalk-marl formation of Campanian to Neogene age. Some parts of the Ghareb formation contain up to 26% organic matter and can be classified as oil shales. Today the rocks in a number of areas, especially the Jerusalem-Jericho area, are largely composed of high-temperature metamorphic minerals corresponding to the sanidinite and pyroxene-hornfels facies (up to 1000 °C, very low P). However, there is no indication of igneous activity or contact

metamorphism in the area. The origin of the heat which metamorphosed these rocks is thought to be due to spontaneous isochemical combustion of bituminous compounds. The intensity of metamorphism correlates to access to oxygen; hydrocarbons are widespread in surrounding rocks but are absent in the metamorphosed beds. One paper argues that combustion was due to hydrocarbon fluids and heat released from a "fossil mud volcano". The rationale for this interpretation is not clear. "Hatrurim Formation" is often used as a locality name, but it is really a geological unit, outcropping at many localities, spread over three countries. Gross (1977) did not describe hibonite from Hatrurim formation, but it now appears in most mineral lists from the area.

4. Hibonite has recently been reported as two transparent orange-brown crystals (0.23, 0.71 gm) said to be recovered from the gem gravels of Myanmar. There is no other information, but other gems from these placers are derived from high-temperature granulite-facies carbonate rocks, similar to those in Madagascar. However, like the SY hibonite (see below) the Myanmar material has very low contents of Fe, but Ti and Mg are both present at levels of 4-5 wt% oxide. This distinguishes it from most of the hibonite found in granulite-facies rocks. The Myanmar grains also contain inclusions of corundum and fluorite, giving another link to the SY occurrences.
5. Hibonite is present in two forms in SY samples: one type is found in primary sources of Mt. Carmel and the other is alluvial, recovered from the Kishon catchment, the main drainage in northern Israel (1022 sq km, 77 km long). This catchment has been divided in the SY Geological model into three segments: Proximal, Mid, Distal Reaches.

6. In the framework of mineralogical analysis of target minerals from these localities within SY's exploration permit areas, SY sent what was then recognized as corundum of Non-Gem Corundum type (NGC). Later, the Macquarie GEMOC team found that a portion of these corundums are actually hibonites (!). Thus, this was the first discovery of hibonite in the SY exploration project. As mentioned above, it should be noted that hibonite has already been found in southern Israel – at least mentioned in minerals from lab analysis on specimens there (see section 3). SY samples reach up to few mm in size, as crystals (see section 8 and photos below).
7. SY samples discussed here are taken from (1) Kishon River Mid Reach Multi-Commodity placer (alluvial samples 982, 1124, 1125, 1174, and 1175), (2) samples 479 and 480 rock samples from the Rakefet Magmatic Complex (RMC), (3) eluvial sample 767 from the Muhra volcanic body (MHK) and (4) alluvial sample 751 from the Migdal Ha-Emeq area (map). While the Kishon River Mid Reach is a narrow gap offering a geomorphological and sedimentary trap, the Migdal HaEmeq area is currently a faulted block (Nazareth tilted block) raising above the proximal reach of the Kishon catchment. Neogene volcanics occur along the faulted margins and their relation to SY findings (mainly in Mizra River) is being examined.
8. Hibonite occurs as rounded grains up to few mm across, commonly with one or more possible crystal faces. The colour in rough tends to be purplish, but in polished grains it commonly is transparent and has a yellow-orange colour similar to the Myanmar gemstones. One characteristic feature is the occurrence of inclusions consisting

of native vanadium, and a typical association with grossite (CaAl_4O_7) and fluorite. The second type of occurrence is interstitial to corundum crystals in corundum aggregates, associated with grossite. The SY hibonite does not contain significant amounts of Fe or Ti.

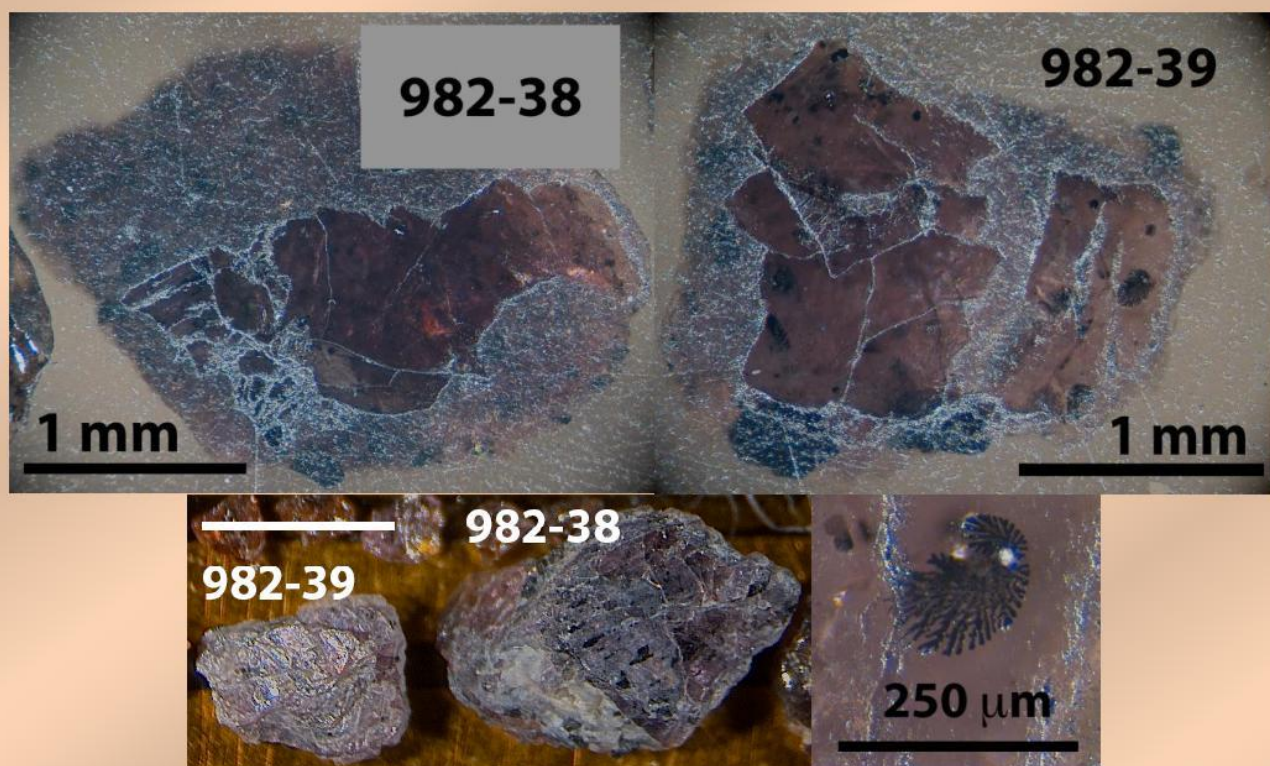
9. Finally, hibonite is a common phase in the refractory Calcium-Aluminum Inclusions (CAIs) found in carbonaceous chondrite meteorites. As such, it represents some of the oldest crystalline material in the Solar system.

Conditions of Formation:

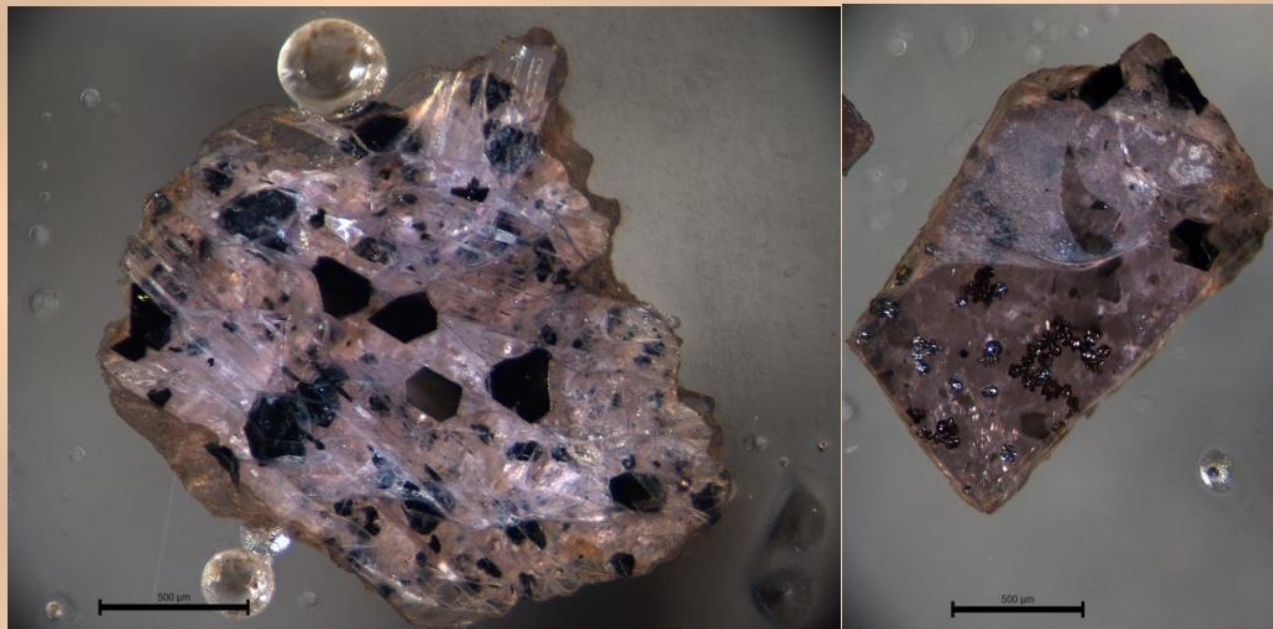
Oxygen fugacity ($f\text{O}_2$): Hibonite is stable over a wide range of oxygen fugacity – as noted above, some of the metamorphic examples contain Fe^{3+} . In contrast, the SY material is associated with native V, which requires $f\text{O}_2$ at least 8 log units more reducing than the iron-wustite buffer. This is consistent with the occurrence of tistarite (Ti_2O_3) and SiC in the same deposits.

Temperature: Hibonite also is stable over a range of temperature. As noted above, the formation of hibonite in granulite-facies rocks appears to occur at temperatures of 700-800 °C. Hibonite crystallizes from $\text{CaO-Al}_2\text{O}_3$ melts at ca 2100 °C, through a peritectic reaction with corundum, but in more SiO_2 -rich systems the corundum-hibonite cotectic extends down to ca 1700 °C. The presence Mg, Ti and F are expected to lower these liquidus temperatures further.

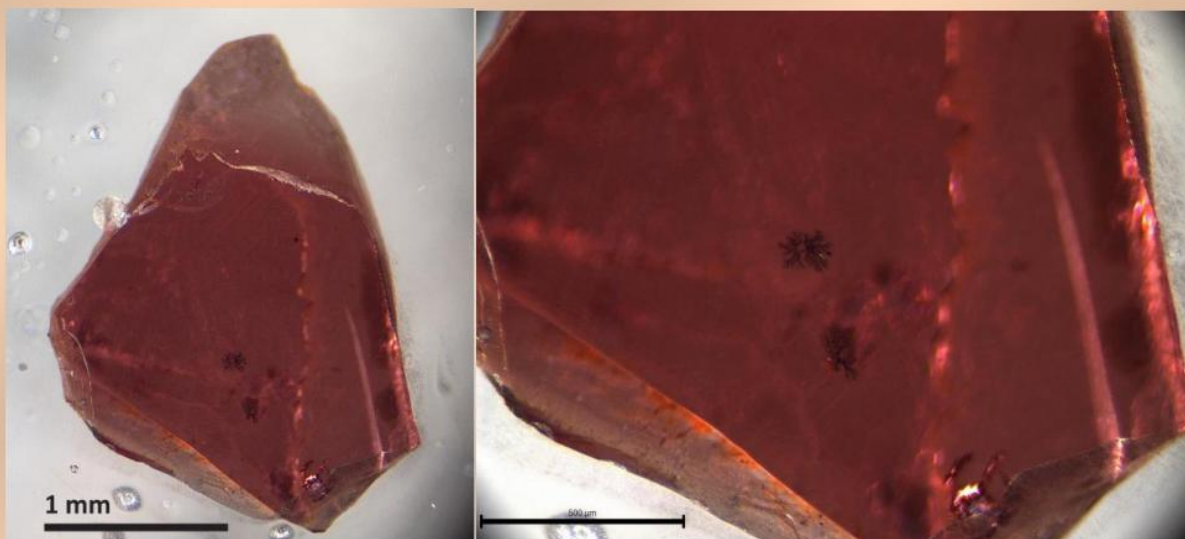
Pressure: There are no independent constraints on the pressure of formation for hibonite; it crystallized at very low pressure in the Solar nebula, at ca 1-2 km depth in the Hatrurim Formation, and at ca 10-30 km depth in the granulite occurrences. The Mt Carmel samples probably crystallized at depths between 30 and 100 km (Griffin et al., 2016).



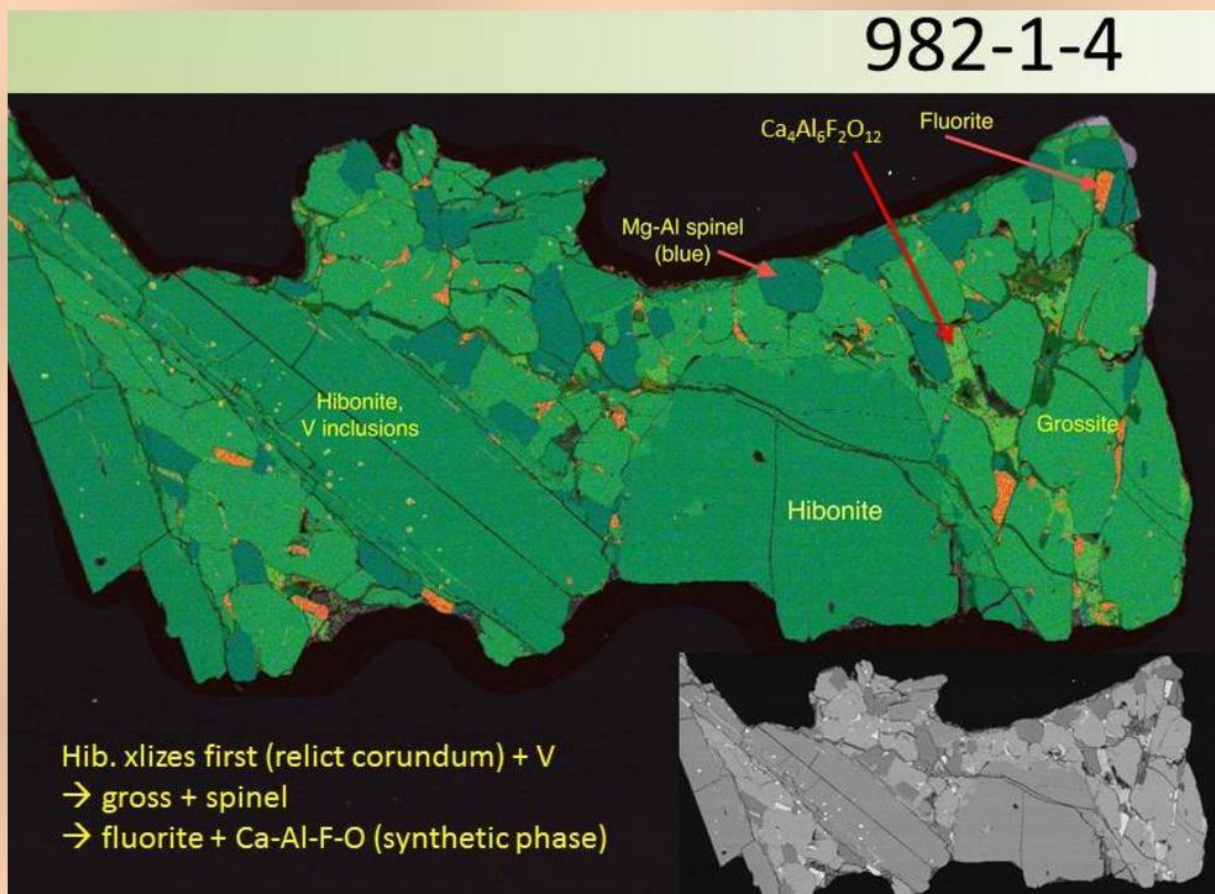
Pictures of the first hibonite grains that were misidentified as corundum - sample SY-982 Kishon Mid Reach. Top images of the hibonite mounted in epoxy, bottom left image rough grains before mounting (white scale bar = 2mm) and bottom right close up of the inclusion from 982-39.



These two grains are hibonite intergrown with grossite, fluorite, spinel (large black hexagonal crystals) and native vanadium (small black spherical crystals). Samples: left 1175, right 982, scale bars = 500 μm.

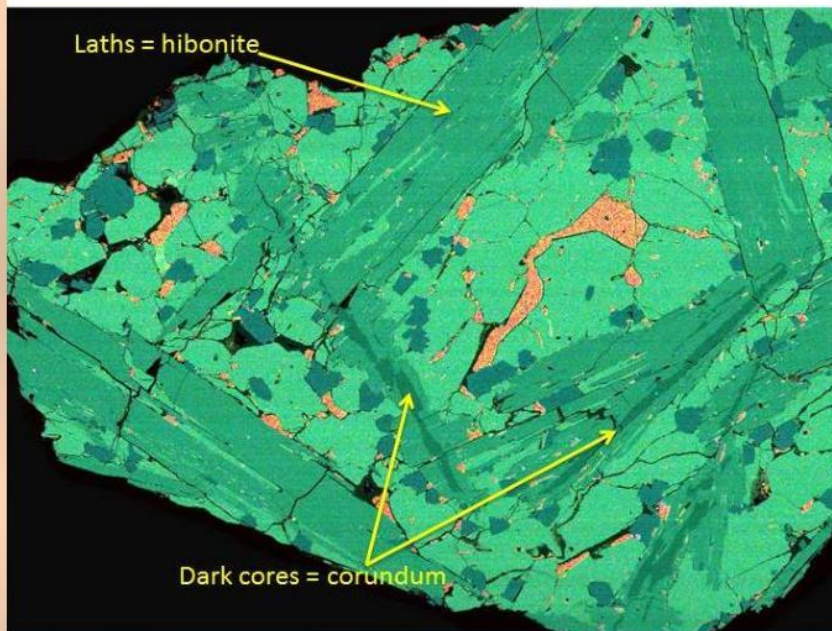


This hibonite crystal has native vanadium in dendritic structures. Sample 1124, scale bar right=500 µm



1174-D-05

Textural evidence for peritectic reaction
corundum + melt \rightarrow hibonite



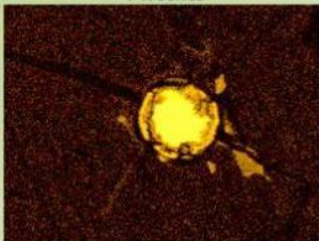
Matrix is grossite + spinel.

Grossite crystallizes together with hibonite at ends and edges of laths.

Grossite is euhedral against fluorite, the last phase to crystallize

1175-B-2

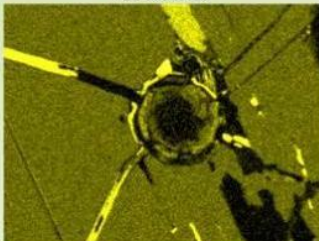
V K series



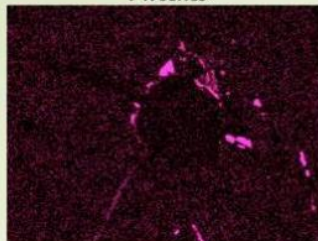
Al K series



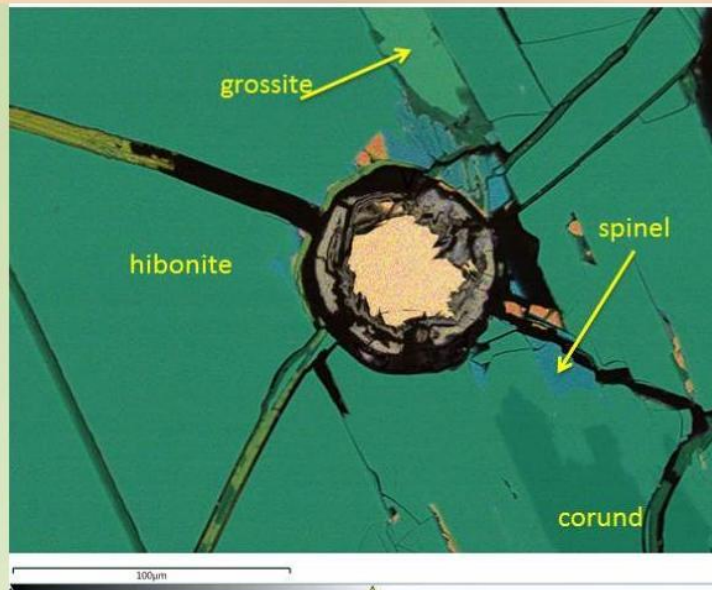
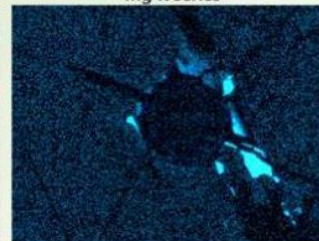
Ca K series

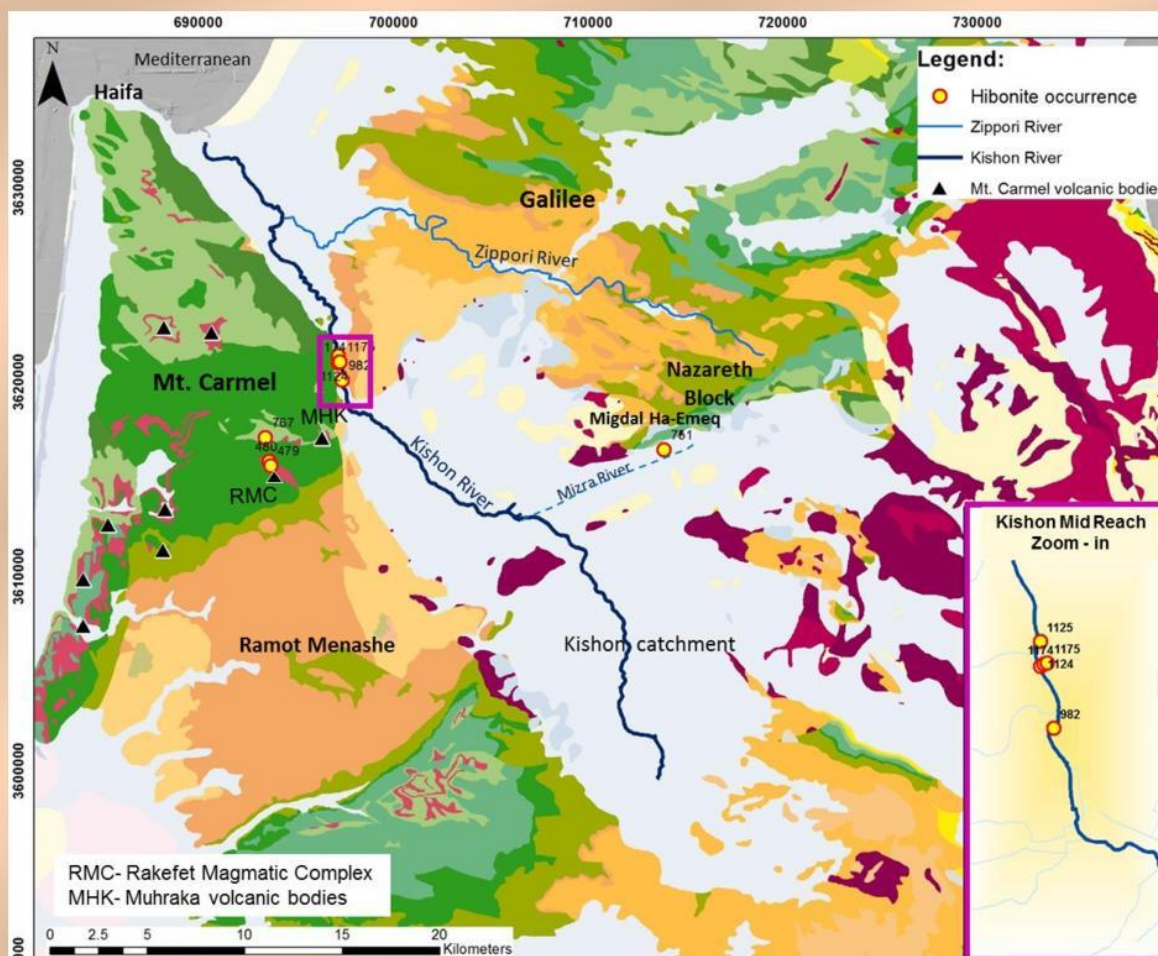
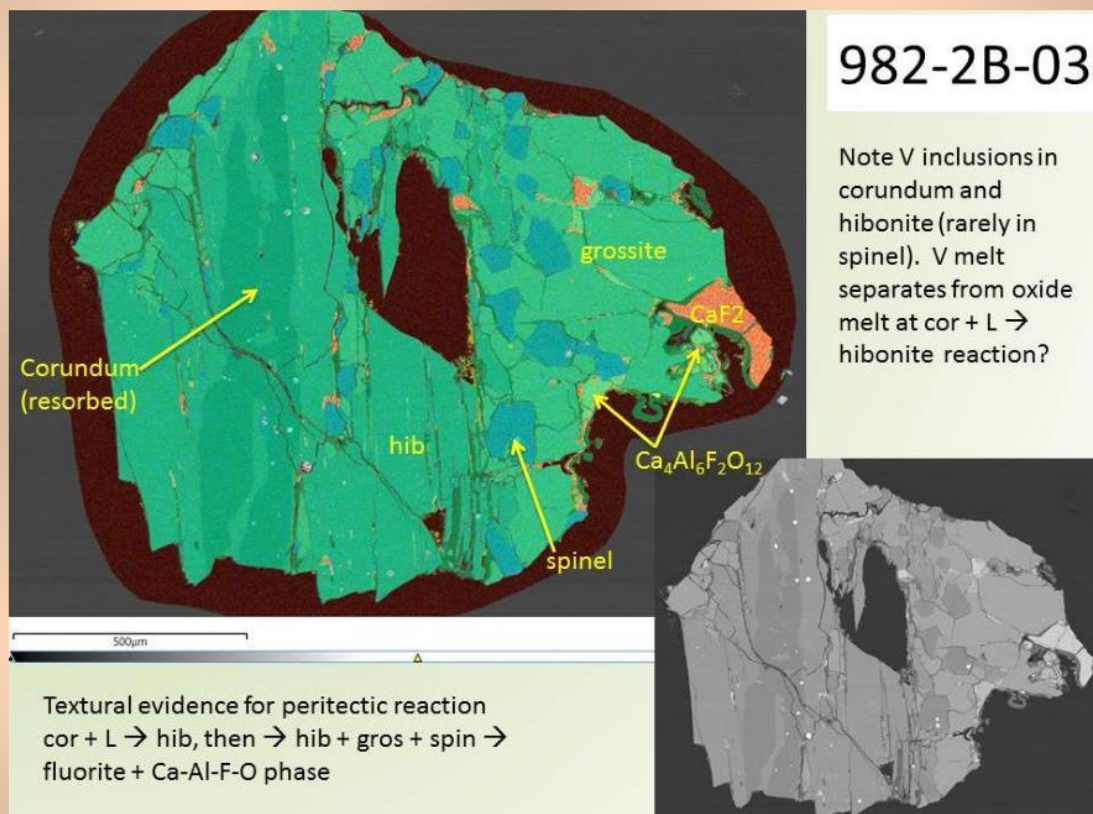


F K series



Mg K series





Shefa Yamim's hibonite findings distribution

Samples of Hibonite from various sites in the world

Hibonite Mineral , Size: 0.70 x 0.73 x 0.54 cm , Weight: 0.71 g, Origin: Myanmar

Photo by kind permission of © www.gemfrance.com www.realgems.org/list_of_gemstones/hibonite.html



Hibonite

Vohimena deposit, Tranomaro Commune, Amboasary District, Anosy Region, Tuléar Province, Madagascar



Hibonite

Andrakaholo, Amboasary District, Anosy Region, Tuléar Province, Madagascar



Hibonite

Unspecified hibonite locality, Sierra de Comechingones, San Luis, Argentina

www.mindat.org/min-1897.html



Hibonite

Size: 0.45 x 0.43 x 0.32 cm

Weight: 0.64 ct

Origin: Mogok Area / Myanmar

Photo by kind permission of © www.americanthai.com
www.realgems.org/list_of_gemstones/hibonite.html

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