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TECHNICAL REPORT AND RESOURCE ESTIMATE ON THE SOUTH CROFTY TIN PROJECT, CORNWALL, UNITED KINGDOM

FOR

STRONGBOW EXPLORATION INC.

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30U 337,679 mE 5,565,836 mN

NI 43-101 & 43-101F1
Technical Report No. 295

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1.0 SUMMARY

This Technical Report, with an effective date of February 26, 2016, was prepared by P&E Mining Consultants Inc. ("P&E") at the request of Mr. Richard Williams, P.Geo, President and CEO of Strongbow Exploration Inc ("Strongbow" or the "Company"). Strongbow is a TSX Venture Exchange listed Canadian-based company with its head office located in Vancouver, B.C. This report was prepared to provide an independent Technical Report and Resource Estimate on the South Crofty Tin Project ("South Crofty Project") located in Cornwall, United Kingdom. Strongbow has an agreement to purchase 100% interests in Western United Mines Limited ("WUM") and Cornish Minerals Limited (Bermuda) ("CMLB"), which own the surface and underground mining rights to the South Crofty Project.

The South Crofty Project is a past-producing underground tin mine located in the town of Pool in the historic Cornwall tin mining district of southwest England. The Project is located 390 km west-southwest of London, England and is approximately 4.5 km south of the Celtic Sea coast.

The Project's extensive 1,490 ha underground permissions extend over twenty six historic mining operations, including two of the most significant mines in the Cornish tin mining district, being the South Crofty mine to the east and the Dolcoath mine to the west. The Project's underground permissions area includes five Mineral Rights, which are registered with the Land Registry as well as areas of Mineral Rights that are leased or unregistered.

The Project is currently on care and maintenance, and operates under permissions that were granted in 1952 and updated in 2006 with environmental conditions imposed. Replacement planning applications for surface and underground developments were approved by Cornwall Council in 2011 and 2013 which has increased the Project area to 1,490 ha with a working depth of 1,500 m below surface. The underground mining permission is valid, subject to meeting certain conditions, until 2071. WUM also has approximately 6.1 ha (15 acres) of surface ownership.

The Project site is located within an industrial area with highly developed power supply and regional distribution and has two 33 kV overhead power lines which cross the Property. The Project also has ready access to fresh water supplied by the South West Water utility. Site infrastructure from prior mining and development operations includes office and warehouse buildings, and the partially refurbished New Cooks Kitchen shaft. A modern decline extends to a vertical depth of 120 m at an average gradient of -16% and provides access to the Upper Mine Dolcoath mineralization. Mill and concentrator facilities from prior operations have been dismantled and removed.

The South Crofty Project is located in the highly mineralized central mining district of Cornwall. Mining is reported to have been undertaken in the region from before 2000 BC during the Bronze Age of Western Europe. The modern ownership history may be considered as starting in 1967 when South Crofty Ltd. became a wholly owned subsidiary of Siamese Tin Syndicate Ltd and Siamese Tin's subsidiary, St. Piran Ltd. In mid-1982, the company was acquired from St. Piran by Charter Consolidated, which subsequently disposed of 40% of its holdings to Rio Tinto Zinc ("RTZ"). In 1984, RTZ acquired Charter's 60% interest and South Crofty became part of Carnon Consolidated Ltd.

In October 1985, the price of tin dropped dramatically on the world markets following the collapse of the International Tin Agreement. Carnon became privately owned in June 1988 when

the business and assets of the group were purchased from RTZ through a management buy-out. In 1994 South Crofty was purchased by Crew Natural Resources ("Crew") of Canada. After several years of depressed tin prices, South Crofty was closed in March 1998 and the mine was allowed to flood. At the time of its closure in 1998, South Crofty was the last remaining working tin mine in Cornwall.

The South Crofty Project was acquired by Baseresult Holdings Limited (Baseresult) in 2001. In November 2007, Baseresult formed a 50-50 joint venture with Galena Special Situations Fund ("GSSF") and formed Cornish Minerals Limited (Bermuda) ("CMLB"). Ownership of the project was transferred to Western United Mines Ltd. ("WUM").

In 2011, Celeste Copper, a Canadian publicly listed company, entered into a joint venture agreement with WUM on the South Crofty project. In 2013, due to poor market conditions, Celeste failed to meet its commitments under the joint venture with WUM and WUM and CMLB were placed into administration to protect the assets.

GSSF is the only secured creditor under administration. In 2014, GSSF reached an agreement with a Vancouver based private company, Tin Shield Production Inc ("Tin Shield"), whereby Tin Shield had the right to acquire a 100% interest in WUM / CMLB. Tin Shield has been funding ongoing operational costs under the administration process in order to maintain the underground mining permissions in good standing.

In March 2016, Strongbow announced that it had reached agreement with GSSF and Tin Shield to acquire a 100% interest in WUM and CML by funding the exit from administration.

The material terms of the agreement are as follows, all references to currency being in Canadian dollars unless otherwise specified:

- Strongbow to enter into a purchase and sale agreement with the administrator managing the affairs of the Companies to acquire the shares of the Companies and to fund the exit of the Companies from administration by settling a proportion of claims owed to unsecured creditors. The exit from administration is budgeted to cost up to CDN$350,000.
- Galena, the only secured creditor, will convert all debt owed to it into common shares of Western United Mines Ltd which shares will be acquired by Strongbow, which will complete the acquisition of 100% of the shares of the Companies.
- Strongbow to reimburse Tin Shield for the operating costs incurred for the project from November 1, 2015 in an amount not to exceed CDN$340,000. In addition, Strongbow will make a payment of US$80,000 to Tin Shield and will assume responsibility for operating costs to a maximum of CDN$85,000 per month until the earlier of: a) Closing, and b) the sixtieth day following the agreement.
- Strongbow to issue 2,000,000 common shares to Galena on TSX Venture Exchange approval of the agreement.
- Strongbow to issue 1,000,000 common shares to Galena upon receipt of a permit to increase water discharge from the old mine workings from 10,000m3 per day to 25,000m3 per day.
- Strongbow to make a payment to Galena totaling CDN$2,000,000 (cash and / or common shares at Strongbow's election) on the second anniversary of the successful exit from administration.

- Strongbow to issue 2,000,000 common shares to Galena on delivery of a positive feasibility study or commencement of commercial production, whichever occurs first.
- Strongbow to make a cash and / or common share payment to Galena equal to 25% of the NPV of the project upon making a decision to go into production. In the event that Strongbow's market capitalization is less than the NPV of the project when a production decision is made, Strongbow will pay the equivalent of 25% of its market value to Galena and the balance (between the 25% of market value and 25% of the NPV of the project) will be paid out as a 5% Net Profits Interest from production.
- In the event that Strongbow transfers any assets, rights, or entitlements to certain mineral rights which are not part of the core mineral rights (the "Other Mineral Rights") to a third party before the agreed consideration has been paid to Galena, then Galena will be entitled to receive a payment equal to 10% of any consideration received for the Other Mineral Rights, to a maximum of CDN$1,000,000.
- Subject to certain conditions, Galena shall direct Strongbow to pay 47.5% of the consideration payments to Tin Shield.

P&E has relied on copies of a legal opinion dated February 26, 2016 from Stephens Scown LLP, solicitors to Strongbow, to confirm that Strongbow will have title to the underground mine permission area and certain surface rights when the South Crofty Project exits from administration.

Readers are cautioned that Strongbow currently does not control the surface and underground rights to the South Crofty property and will not control the rights until such time as Strongbow receives final approval for the transaction from the TSX Venture Exchange. Approval is subject to certain conditions, including delivery and acceptance of this technical report, confirmation that Strongbow has sufficient funding, and the assets have successfully exited from the Administration process.

Average annual production in the period 1984 to 1998 at the South Crofty was 191,200 tons at an average grade of 1.31% Sn. A total of 9,976,171 tons at an average grade of 1.00% Sn were mined between 1906 and 1998. In addition to the South Crofty mine production, the Dolcoath Mine operated as an independent mine from 1895 to 1921. During this period 2,135,470 tons of ore were processed at a grade of approximately 2% Sn.

The South Crofty Project has a very large historic database with an estimated 3,000 drill holes (87,000 m) and 45,000 underground channel samples that have been compiled by WUM. A closure estimate was completed for the South Crofty Property by Owen and LeBoutillier for Crew in 1998. This estimate included Proven and Probable "reserves" of 730,750 tonnes at 1.48% Sn plus Inferred resources of 2,172,850 tonnes at 1.48% Sn. The estimate was based on longitudinal section calculations using a 1% Sn cut-off and minimum 1.0 m mining width.

Recent drilling from 2008 to 2013 at Dolcoath, and the increase in resources there, has rendered the 1998 estimate out of date. In addition, the current Resource Estimate reported in this study was prepared using different parameters such as cut-off and metal pricing and used a block model estimation methodology.

The historical estimate was prepared according to the mine's operational policy at the time of closure in 1998. The estimate predates the introduction of National Instrument 43-101 (NI43-101). A Qualified Person (QP) has not carried out sufficient work to verify these historical estimates as current mineral resources and therefore, the company is treating the numbers as historical and indicative only, and as such the estimates cannot be relied upon.

Micromine Limited ("Micromine"), UK, was engaged by Celeste to produce NI 43-101 Resource Estimates and Technical Reports in 2011 and 2012. These estimates incorporated results of drilling by WUM and focussed on the Upper Dolcoath lodes, west of the Great Crosscourse fault and above approximately 400 m depth from surface. The Micromine results are superseded by the present Resource Estimate in this technical report.

The geology of Cornwall is dominated by granitic intrusions that are part of Permian Cornubian batholith and Devonian metasedimentary and metavolcanics, known locally as "killas", that form the metamorphic aureole and host rocks of the intrusions. This assemblage was formed in the Variscan orogenic event. Crustal thickening resulting from deformation of Devonian flysch-type sediments and associated volcanics during the initial phases of the Variscan orogeny in the Devonian and Carboniferous periods, was followed by lithospheric extension, crustal subsidence and anatexis of metasediments to form Cornubian granitoid magmas in the Permian.

The South Crofty Project area lies on the north side of the Permian Carn Brea Granite that is thought to be connected with the Cornubian batholith at depth. The South Crofty Project area is underlain by rocks locally known as "killas", a series of metasedimentary and metavolcanic rocks and associated hornfels and skarns, that occur in close proximity to the granite contact. At depth, the granite underlies the whole project area. Mineralization occurs in "lodes" or vein-type structures that generally strike east-northeast and parallel the strike of the granite/killas contact. The lodes occur in both the granite and the overlying killas and the character of the lodes changes depending on the host rocks. Within the granite, the principal mineral of economic significance is cassiterite, whereas above the granite contact, copper and zinc sulfide mineralization is developed. The Great Crosscourse is a late fault that bisects the South Crofty Project area and is associated with an approximately 100 m strike slip movement. The Great Crosscourse had a significant influence on the historical mine development of the South Crofty Project since the South Crofty Mine was developed on the east side of the fault and the Dolcoath Mine on the west side and the two mines were not hydraulically connected.

WUM re-established the decline at the Project site and since 2008 extended the decline a further 380 m to a total depth of 120 m below surface at an average gradient of -16%. The decline extends in a south-westerly direction through the Great Crosscourse above the historic Dolcoath workings and provides exploration access to the upper Dolcoath area lodes.

The ability to drill from surface is limited by the urban development of the surface overlying a significant part of the Project Mineral Rights. Furthermore, historically there has been very limited surface exploration drilling. WUM's approach was to use the decline and spine drive for all of its modern exploration drilling. The decline and spine drive has served as an access point for the 31,000 m underground drill program conducted by WUM.

The Mineral Resources for the South Crofty Project were estimated by conventional 3D computer block modelling methods employing Dassault Systemes GEMS mining software V6.4 and V6.6 (GEMS).

The Sn, Cu, Zn, Pb, and W mineralization occurs in various narrow, structurally controlled hypothermal to epithermal fissure veins or lodes hosted in killas metsedimentary rocks and Carn Brea batholith granites. Polymetallic-low grade tin mineralization is characteristic of the killas whereas the granite is tin-rich and base metals poor. Mineral Resources were estimated for 24 lodes located within an area of 3.3 km by 1 km and extending from near surface at Dolcoath to 835 m depth from surface for the deep lodes such as at Roskear and No. 8 area. The granite-hosted deep lodes have witnessed past mining with resources having been accordingly depleted for stopes, draw points and raises but not for levels and drifts since the latter are volumetrically small. The narrow widths of the lodes and presence of town infrastructure on surface precludes open cast mining leaving the lodes being only amenable to underground mining.

For the purpose of resource estimation and reporting, the lodes have been grouped into the "Lower Mine" which includes the deep, granite-hosted lodes for which only tin analyses are available, and the "Upper Mine" in which lodes straddling or lying above the granite-killas contact, have been tested by recent drilling and have multi-element analyses available. The recent drilling and assaying has been subjected to current industry standard QA/QC work, however, the historic core drilling and assaying would have been supported by mine quality control practices in force at those times and would not have been as rigorous as required by today's CIM standards.

Indicated and Inferred Mineral Resources have been estimated for tin in the Lower Mine and tin, copper and zinc in the Upper Mine. This resource estimate is based on diamond drilling, core sampling and assaying as well as underground back and face channel sampling and chip sample assaying. Sampling during past mine operations in the Lower Mine was predominantly historic channel sampling and short hole wall drilling in drives with historic exploration drilling on strike and down dip of the workings. Recent drilling from 2008 to 2013 has tested the Upper Mine Dolcoath lodes.

The exploration drill hole database for the South Crofty Project contains 157 recent diamond drill holes totalling 30,931.82 m, 3,362 historic diamond drill holes for 90,732.81 m and 14,893 historic channels over 29,439.75 m.

Metal prices used for the mineral resource estimate are US$8.50/lb Sn, US$2.75/lb Cu and US$0.90/lb Zn based on LME approximate two-year trailing averages at March 31, 2016. Process recovery assumptions are 88.5% for Sn, 85% for Cu and 70% for Zn. Given the polymetallic nature of the lodes, mineral wireframe modelling and resource reporting is based on tin equivalent (SnEq) grade. The SnEq calculation includes metal price and recovery: SnEq% = Sn% + (0.311 x Cu%) + (0.084 x Zn%). For the deep lodes, only tin analyses are available, therefore SnEq% is essentially Sn%.

Fifty-nine (59) mineral wireframes for twenty-four (24) lodes were constructed from mineralization intercepts in channels and drill holes at a cut-off grade of 0.5% SnEq over a minimum true width of 1.2 m. The Lower Mine lodes were modelled mostly on level plans using varying horizontal widths depending on lode dip. Minimum length of Sn mineralization along strike on the levels for inclusion in resources was 15 m. Lode widths commonly are narrower than minimum mining width and were "bulked out" to at least minimum width using adjacent assays when available and practical or to minimum width at zero grade where only the lode was sampled. In the latter case, preference was given to bulking out on the lode footwall in keeping with past mining convention at South Crofty. Upper Mine lodes, estimated predominantly from recent drilling, were modelled on vertical cross sections.

Assay grades were capped at 6% for Sn, 4% for Cu and 20% for Zn for the Upper Mine and 20% Sn for the Lower Mine. Assay composites were generated for the vein intercepts from the assays captured by GEMS software in the mineral wireframes. Channel samples from predominantly the Lower Mine, were composited at a length is 1.2 m dynamically adjusted in order that all composites in the intercept have the same length. This method ensures that the grade weighting is correctly applied for bulked out lode widths but results in variable composite lengths. Compositing for drill holes was done down hole at 1.5 m consistent lengths with review of discarded residual fragments for bias.

Four block models and several partial models were created to encompass the various lode areas: Dolcoath, Roskear, No.4-No.8-No.2-Providence; and Pryces-Tincroft. The resource block models' X axes are rotated to 60° azimuth. Block sizes are 5m x 5m x 2m vertical. Inverse distance cubed (ID^3) interpolation was carried out using multiple search distances and search ellipses oriented to lode strikes and dips.

Historic bulk density for mining granite-hosted lodes was 2.77 t/m^3 (Owen et al. 1998). Water immersion bulk density testing was carried out on-site for 119 core samples from 2010 to 2011 drill holes. Samples were obtained from the Dolcoath lodes and averaged 3.09 t/m^3. To convert block model volumes to tonnes, P&E used a 2.77 t/m^3 bulk density for the deep, granite-hosted lodes and 3.0 t/m^3 for the killas-hosted Sn-Cu-Zn bearing lodes at Dolcoath.

Mineral Resources were classified as Indicated and Inferred based on completeness of channel sampling (levels above/below, raises), the drill hole spacing, confidence in the assaying for drilling, and geologic confidence in grade continuity. The Indicated and Inferred resources for the Lower Mine includes pillars and sills, some of which may not be recoverable pending an engineering study. The South Crofty Project mineral resources are presented in Table 1.1. The total Indicated Mineral Resource estimated for a 0.6% SnEq block cut-off grade is 1.92 million tonnes averaging 1.70% SnEq. The total Inferred Resource for a 0.6% SnEq block cut-off grade is 1.20 million tonnes averaging 1.52% SnEq.

TABLE 1.1
SOUTH CROFTY RESOURCE ESTIMATE AT 0.6% SN/SNEQ CUT-OFF([1-11])

Lode/Mine	Indicated		Inferred	
	Tonnes (k)	Sn/SnEq %	Tonnes (k)	Sn/SnEq %
Lower Mine Lodes Sn%				
No. 4	452	2.04	225	2.19
No. 2	180	1.63	13	1.12
No. 8	127	1.72	34	2.33
No.2-NCK	53	2.18	-	-
Providence	-	-	28	2.37
Roskear A	28	2.15	50	2.15
Roskear B	90	1.93	70	1.85
Roskear BHW	24	1.77	-	-
Pryces/Tincroft	298	1.67	74	2.24
Dolcoath South	226	1.67	108	1.50
Dolcoath South Branch	38	1.56	5	2.07
Dolcoath North	144	1.55	47	1.57

TABLE 1.1 SOUTH CROFTY RESOURCE ESTIMATE AT 0.6% SN/SNEQ CUT-OFF([1-11])				
Lode/Mine	**Indicated**		**Inferred**	
	Tonnes (k)	**Sn/SnEq %**	**Tonnes (k)**	**Sn/SnEq %**
Dolcoath North HW	-	-	14	0.88
Dolcoath North FW	-	-	70	1.36
Subtotal Lower Mine	**1,660**	**1.81**	**738**	**1.91**
Upper Mine Lodes SnEq%				
Dolcoath Middle	89	1.01	22	0.77
Dolcoath Middle Branch (ID4)	36	1.00	-	-
Dolcoath Upper Main	-	-	274	0.81
Dolcoath Upper South South Branch	-	-	86	.86
Dolcoath NVC	-	-	35	1.11
Dolcoath Little NW	11	0.82	-	-
Dolcoath Little NW FW	-	-	1	0.86
Dolcoath Little NE (ID4)	-	-	46	1.44
Dolcoath S. Entral (ID4)	121	0.98	-	-
Subtotal Upper Mine	**257**	**0.99**	**464**	**0.91**
Grand Total Lower and Upper Mine	**1,917**	**1.70**	**1,202**	**1.52**

(1) CIM definitions were followed for Mineral Resources.

(2) The Qualified Persons for this Mineral Resource estimate are: Richard Routledge, M.Sc. (Applied), P.Geo. and Eugene Puritch, P.Eng. of P&E Mining Consultants Inc.

(3) Mineral Resources are estimated by conventional 3D block modelling based on wireframing at a 0.5% Sn/SnEq cut-off grade and inverse distance to the power of 3 grade interpolation. The 0.5% Sn/SnEq cut off for wireframing vs 0.6% Sn/SnEq for resource reporting is due to a shift to lower Sn prices between the commencement and finalization of this report.

(4) SnEq is calculated using the formula: SnEq% = Sn% + (Cu% x 0.311) + (Zn% x 0.084).

(5) For the purpose of resource estimation, assays were capped at 20% Sn for the Lower Mine and 6% for Sn, 4% for Cu and 20% for Zn for the Upper Mine.

(6) The 0.6% Sn/SnEq resource cut-off grade was derived from the approximate March 31, 2016 LME two year trailing average Sn price of US$8.50/lb, Cu price of US$2.75/lb, and Zn price of US$0.90/lb, 88.5%, 85% and 70% respective process recoveries, smelter payable of 95% and Sn refining charges of US$0.25.lb. Operating costs used were US$55/t mining, US$27/t processing and US$9/t G&A.

(7) Bulk densities of 2.77 tonnes/m^3 and 3.00 tonnes/m^3 have been applied for volume to tonnes conversion for the Lower and Upper Mine, respectively.

(8) Mineral Resources are estimated from near surface to a depth of approximately 869 m.

(9) Mineral Resources are classified as Indicated and Inferred based on drill hole and channel sample distribution and density, interpreted geologic continuity and quality of data.

(10) The mineral resources have been depleted for past mining, however, they contain portions that may not be recoverable pending a future engineering study.

(11) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. There is no certainty that all or any part of the Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration.

Validation of the grade interpolation and the block model was carried out by on-screen review of grades and other block model estimation parameters versus drill hole composites, by comparison of assay, composites, zone intercepts and block grades, comparison to alternate nearest neighbour (NN) interpolations, and review of the volumes of wireframes versus reported resources.

Although there are number of uncertainties in the historic data, appropriate due diligence has been exercised to compile and verify data from mine records and in P&E's opinion, the resource estimate has no fatal flaws, is reasonable and has been undertaken according to industry standard practice.

P&E recommends the Strongbow undertake a Preliminary Economic Assessment (PEA) of the South Crofty Project. A PEA is budgeted to cost approximately $250,000.

The potential for resources at the Roskear D and North Pool lodes was not addressed as part of this Project and this should be considered during the PEA study.

Assuming encouraging results from the PEA study, P&E recommends fill-in drilling to upgrade a portion of the Lower Mine Inferred Resources to Indicated Resources as a basis for Prefeasibility or Feasibility Study and estimation of mineral reserves. A preliminary diamond drilling campaign of 26,500 m is proposed to upgrade approximately 320,000 tonnes of resources in No. 2 and Dolcoath South lodes in the Lower Mine, and to test areas adjacent to the Dolcoath and Roskear lodes where the is potential for a material increase in the resource. The campaign assumes access from surface or upper level workings and controlled drilling of wedged holes off pilot holes. P&E estimates preliminary costs for the drill program at $5.3 million.

The Phase 1 focus for the project is to exit administration, address surface planning conditions and undertake a Preliminary Economic Assessment ("PEA"), which is expected to be completed within 9 months of TSX Venture Exchange approval of the agreement. The budget for completion of this phase of work is summarised below in Canadian Dollars. This budget does not include payments to be made under the agreement between Strongbow, Galena and Tin Shield, nor does it cover the general working capital needs of Strongbow outside of the direct costs related to South Crofty.

Exit administration	$315,000
Operating costs ($70,000/month for six months)	$420,000
Technical Report	$100,000
Surface planning conditions	$30,000
Preliminary Economic Assessment	$250,000
Total	**$1,125,000**

The potential for resources at the Roskear D and North Pool lodes was not addressed as part of this Project and this should be considered during the PEA study.

In Phase 2, assuming encouraging results from the PEA study, P&E recommends fill-in drilling to upgrade a portion of the Lower Mine Inferred Resources to Indicated Resources as a basis for Prefeasibility or Feasibility Study and estimation of mineral reserves. A preliminary diamond drilling campaign of 26,500 m is proposed to upgrade approximately 320,000 tonnes of resources in No. 2 and Dolcoath South lodes in the Lower Mine, and to test areas adjacent to the Dolcoath and Roskear lodes where the is potential for a material increase in the resource. The campaign assumes access from surface or upper level workings and controlled drilling of wedged holes off pilot holes. P&E estimates preliminary costs for the drill program at $5.3 million.

There are many opportunities to both increase the mineral resources and to raise the confidence category of those resources by additional drilling and development.

Similarly, there are additional historic but unconnected mines within the mineral rights area that represent additional exploration or development potential to the Project.

The potential for resources at the Roskear D and North Pool lodes was not addressed as part of this Project and should be considered in future work programs

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 TERMS OF REFERENCE

The following report was prepared to provide a Technical Report and Resource Estimate on the South Crofty Tin Project ("South Crofty Project") located in Cornwall, United Kingdom. Strongbow has reached an agreement with GSSF and Tin Shield to acquire a 100% interest in the South Crofty Project by funding the exit from administration.

This report was prepared by P&E Mining Consultants Inc. ("P&E") at the request of Mr. Richard Williams, P.Geo., President & CEO of Strongbow. Strongbow is a publicly listed company (TSX-Venture exchange; trading symbol SBW) with its head office located at:

Suite 580 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Tel: 604-638-8005
Fax: 604-638-8011

Mr. Richard Routledge, P.Geo., of P&E, a qualified person under the regulations of NI 43-101, conducted a site visit to the Property on November 17 to 21, 2014. There has been no material change to the scientific and technical information about the property since the November 2014 site visit as indicated in a letter from Kevin Williams, Western Union Mines Ltd, mine manager, on May 19, 2016.

In addition to the site visit, P&E held discussions with technical personnel from WUM regarding all pertinent aspects of the project and carried out a review of all available literature and documented results concerning the Property. The reader is referred to those data sources, which are outlined in the References section of this report, for further detail.

The Mineral Resources in the estimate are considered compliant with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions.

2.2 SOURCES OF INFORMATION

The Resource Estimate is prepared in compliance with the CIM Definitions and Standards on Mineral Resources and Mineral Reserves, which are in force as of the effective date of this report.

2.3 UNITS AND CURRENCY

Unless otherwise stated all units used in this report are metric. Tin (Sn), copper (Cu) and zinc (Zn) assay values are reported in percentage (%) of metal. The US$ is used throughout this report unless specifically stated otherwise.

The following list shows the meaning of the abbreviations for technical terms used throughout the text of this report.

Abbreviation	Meaning
"Ag"	silver
"As"	arsenic
"Au"	gold
"cm"	centimetre(s)
"CML"	Cornish Minerals Ltd.
"Companies"	WUM and CML (Bermuda)
"Co"	cobalt
"Cu"	copper
"DDH"	diamond drill hole
"DIT"	Department of Industry and Trade
"ft"	foot
"g/t"	grams per tonne
"GSSMF"	Galena Special Situations Master Fund
"ha"	hectare(s)
"HHP"	High heat production
"km"	kilometre(s)
"m"	metre(s)
"mm"	millimetre(s)
"Ma"	millions of years
"P&E"	P&E Mining Consultants Inc.
"PEA"	Preliminary Economic Assessment
"Sn"	tin
"T"	imperial ton(s)
"t"	metric tonne(s)
"W"	tungsten
"WUM"	Western United Mines Ltd.
"Zn"	zinc

3.0 RELIANCE ON OTHER EXPERTS

P&E has assumed that all of the information and technical documents listed in the References section of this report are accurate and complete in all material aspects. While we have carefully reviewed all of the available information presented to us, we cannot guarantee its accuracy and completeness. We reserve the right, but will not be obligated to revise our report and conclusions if additional information becomes known to us subsequent to the date of this report.

P&E has relied on a scan copy of a legal opinion dated February 26, 2016 from Stephens Scown LLP, UK solicitors to Strongbow, to confirm that Strongbow will have title to the underground mine permission area and certain surface rights when the South Crofty Project exits from administration. P&E has relied on a letter dated May 19, 2016 from Kevin Williams, Western Union Mines Ltd. mine manger, to confirm that there has been no material change to the Property since the site visit made by P&E on November 17 to 21, 2014.

P&E has not verified the legality of any underlying agreement(s) that may exist concerning the licenses or other agreement(s) between third parties but has relied on Strongbow to have conducted the proper legal due diligence.

A draft copy of the report has been reviewed for factual errors by Strongbow. Any changes made as a result of these reviews did not involve any alteration to the conclusions made. Hence, the statement and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 PROPERTY LOCATION

The South Crofty Project, located in the town of Pool, between the towns of Redruth and Camborne, is a past-producing underground tin mine located in the historic Cornwall tin mining district of southwest England. The Project is located at latitude 50° 13' 21" N longitude 5° 16' 32" W (UTM Coordinates WGS84 30U 337,679 mE 5,565,836 mN). The population of the Camborne-Pool-Redruth urban area is 55,400 (2011 census). The Project is located 390 km west-southwest of London, England. The Property is approximately 4.5 km south of the north coast of Cornwall and the Celtic Sea (Figure 4.1).

The Project is accessed from the fully-permitted site located within the town of Pool. Underground workings extend beneath Pool and the neighbouring towns. The South Crofty Project and past-producing mines extend 3.3 km east-west along strike from Camborne toward Redruth in the east and 800 m north-south from highway A30 to the railway in the south. It is the largest past-producing mine, in terms of area, in Cornwall and workings extend to a depth of 873 m below surface (Hogg 2011).

Figure 4.1 Property Location Map

Source: *Google Earth 2014*

4.2 PROPERTY DESCRIPTION AND TENURE

According to an agreement between GSSF and Tin Shield dated March 15, 2016, Strongbow can acquire a 100% interest in the South Crofty project and surrounding exploration claims by funding the cost for WUM and CML (Bermuda) to exit administration.

i) Western United Mines Limited (WUM), a UK Company, has title to the South Crofty mining rights and certain surface rights; and
ii) Cornish Minerals Limited (Bermuda) (CMLB) (the "Companies") hold a portfolio of certain Cornwall mineral properties. GSSF is the secured creditor of CMLB.

The material terms of the agreement are as follows, all references to currency being in Canadian dollars unless otherwise specified:

- Strongbow to enter into a purchase and sale agreement with the administrator managing the affairs of the Companies to acquire the shares of the Companies and to fund the exit of the Companies from administration by settling a proportion of claims owed to unsecured creditors. The exit from administration is budgeted to cost up to CDN$350,000.
- Galena, the only secured creditor, will convert all debt owed to it into common shares of Western United Mines Ltd which shares will be acquired by Strongbow, which will complete the acquisition of 100% of the shares of the Companies.
- Strongbow to reimburse Tin Shield for the operating costs incurred for the project from November 1, 2015 in an amount not to exceed CDN$340,000. In addition, Strongbow will make a payment of US$80,000 to Tin Shield and will assume responsibility for operating costs to a maximum of CDN$85,000 per month until the earlier of: a) Closing, and b) the sixtieth day following the agreement.
- Strongbow to issue 2,000,000 common shares to Galena on TSX Venture Exchange approval of the agreement.
- Strongbow to issue 1,000,000 common shares to Galena upon receipt of a permit to increase water discharge from the old mine workings from 10,000m3 per day to 25,000m3 per day.
- Strongbow to make a payment to Galena totaling CDN$2,000,000 (cash and / or common shares at Strongbow's election) on the second anniversary of the successful exit from administration.
- Strongbow to issue 2,000,000 common shares to Galena on delivery of a positive feasibility study or commencement of commercial production, whichever occurs first.
- Strongbow to make a cash and / or common share payment to Galena equal to 25% of the NPV of the project upon making a decision to go into production. In the event that Strongbow's market capitalization is less than the NPV of the project when a production decision is made, Strongbow will pay the equivalent of 25% of its market value to Galena and the balance (between the 25% of market value and 25% of the NPV of the project) will be paid out as a 5% Net Profits Interest from production.
- In the event that Strongbow transfers any assets, rights, or entitlements to certain mineral rights which are not part of the core mineral rights (the "Other Mineral Rights") to a third party before the agreed consideration has been paid to Galena, then Galena will be entitled to receive a payment equal to 10% of any

consideration received for the Other Mineral Rights, to a maximum of CDN$1,000,000.

- Subject to certain conditions, Galena shall direct Strongbow to pay 47.5% of the consideration payments to Tin Shield.

CMLB holds the title to the underground mineral rights and WUM holds certain surface rights that form the South Crofty Project. The Project's extensive 1,490 ha underground permissions extend over two key historic mining operations being the South Crofty mine to the east and the Dolcoath mine to the west. The mining operations were historically separated by the Great Crosscourse fault, which follows the course of the Red River as its surface feature.

Figure 4.2 shows the underground permissions area and the geographical context of the Project site in relation to the historic mine workings. The Project underground permissions area includes 5 Mineral Rights which are registered with the Land Registry as well as areas of Mineral Rights that are unregistered (areas coloured pink in Figure 4.2). The registered Mineral Rights have the following title numbers:

- CL169822
- CL169823
- CL188226
- CL188227
- CL188228

The landholdings are detailed in Appendix 1 of the report by Hogg (2011). Permit extents and co-ordinates are surveyed by use of Leica total station device. Confirmation survey was carried out by the mine surveyors in 2003 following the property's initial registration at the Land Registry. The unregistered mineral holdings have not been surveyed, although the relevant plans are held by WUM.

In the UK mineral ownership extends to the centre of the earth. The Project operates under permissions that were granted in 1952 and updated in 2006 with environmental conditions imposed. Replacement planning applications (one for surface and one for underground) were approved by Cornwall Council in 2011 and 2013 which in effect has increased the Project area to 1,490 ha with a working depth of 1,500 m below ground level. WUM has approximately 6.1 ha (15 acres) of surface ownership.

The reader is cautioned that P&E has relied entirely on tenure information provided by an independent legal opinion dated February 26, 2016 conducted by Stephens Scown, a law firm specialising in UK mineral law and solicitors to Strongbow. P&E has not independently verified any of the South Crofty land titles or mineral ownership. P&E has not verified the legality of any underlying agreement(s) that may exist concerning the licenses or other agreement(s) between third parties but has relied on Strongbow to have conducted the proper legal due diligence.

Readers are cautioned that Strongbow currently does not control the surface and underground rights to the South Crofty property and will not control the rights until such time as Strongbow receives final approval for the transaction from the TSX Venture Exchange. Approval is subject to certain conditions, including delivery and acceptance of this technical report, confirmation that Strongbow has sufficient funding, and the assets have successfully exited from the Adminstration process.

4.3 PERMITS

P&E understands that all titles and leases relating to the project including permits required for exploration are current and valid until at least 2020. P&E has not reviewed requirements for the retention of these titles, or the terms of any royalties, back-in rights, payments, or other agreements and encumbrances to which the property may be subject.

Micromine (2012) reported that all permits are in place for future operations, including water discharge, subject to definition of discharge criteria to be determined by the Environment Agency. The Cornwall Council Grant of Conditional Planning Permission dated November 3, 2011, for the surface development of the South Crofty Project including the processing plant is attached as appendix 1 to the Micromine (2012) report. A key condition of the Cornwall Council Planning Permission is that development is to begin within five years from the date on which the permission was granted. This work has commenced and involves submission of plans for approval by November 2016. Under UK planning law, once a conditional planning permission has been granted, the development must commence within 5 years of the granting of the permission, but before construction can commence any conditions that are required to be satisfied before development can commence must be discharged. In the case of the South Crofty surface consent, there are 7 pre-commencement conditions that need to be discharges before construction can start. Work is currently underway to discharge these pre-commencement conditions and will be completed in the next 10 to 12 weeks. Once the pre-conditions are officially discharged by the planning authority then construction may commence. A development is considered to have started once the first stage building inspection has been completed. The first stage building inspection is a physical inspection of any foundation trenches prior to the construction of the foundations. No actual construction will need to take place in order for the planning permission to be deemed as implemented and not all foundations are required to be excavated. Once the planning permission is implemented, the developer has 65 years to complete the development.

Figure 4.2 Mineral Licences forming the South Crofty Project

Source: *Western United Mines Ltd. 2013.*

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESS

The South Crofty Property and the underground workings are largely within and underneath the town of Pool between the towns of Redruth and Camborne. The Project is located in an urban and semi-urban area and, as a consequence, existing transport infrastructure is well-developed (Figure 5.1). The Property is 1 km south of the A 30 trunk road from London to Land's End, Cornwall. Redruth, Camborne, and Pool are all accessed from the A30 road. Air services are available via flights from London Gatwick Airport to St. Mawgan Airport, Newquay, located 30 km northeast of South Crofty. In addition, train services on the First Great Western line extend to Redruth and Camborne from London.

Figure 5.1 Regional Location Map

Source: *Google Earth 2014*

5.2 CLIMATE

Cornwall has a temperate oceanic climate with average annual temperatures of approximately 10°C. Climate data for Truro, Cornwall, located 16 km east of South Crofty (Table 5.1) indicate that July and August are the warmest months with average high temperatures of 19°C and February is the coldest month with average lows of 4°C. October and November are the wettest months with an average of 87 mm of precipitation.

TABLE 5.1 CLIMATE DATA FOR TRURO, CORNWALL													
Month	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Year**
Average high °C (°F)	8 (46)	8 (46)	10 (50)	12 (54)	15 (59)	17 (63)	19 (66)	19 (66)	17 (63)	14 (57)	11 (52)	9 (48)	13.3 (55.8)
Average low °C (°F)	5 (41)	4 (39)	5 (41)	6 (43)	8 (46)	11 (52)	13 (55)	14 (57)	12 (54)	10 (50)	7 (45)	6 (43)	8.4 (47.2)
Precipitation mm (inches)	81 (3.19)	63 (2.48)	49 (1.93)	54 (2.13)	40 (1.57)	47 (1.85)	48 (1.89)	51 (2.01)	57 (2.24)	87 (3.43)	87 (3.43)	78 (3.07)	742 (29.22)

Source: *^ "Weather Averages - Truro, England". Foreca. Retrieved 2008-05-20.*

5.3 LOCAL RESOURCES

Cornwall has a strong history of mining, and historically has exported mine workers all around the globe. Although mining has experienced a considerable decline in the region, mining capability and knowledge is still present in the local workforce. With a local urban population of over 55,000 in the Redruth, Pool, and Camborne area there are sufficient local human resources to staff many unskilled or partially skilled jobs at a mine. The Camborne School of Mines, part of the University of Exeter, is located in Cornwall and is a major centre of higher learning for geology and mining engineering. Mining equipment supply, service support, and other logistical requirements should be available as there are existing china clay open pit mining operations in Cornwall, as well as the Drakelands tungsten-tin mine in the neighbouring county of Devon, owned by Wolf Minerals Ltd., which started production in 2015.

5.4 INFRASTRUCTURE

The site has excellent transportation infrastructure including the A30 trunk road located 1 km north of the property and the First Great Western railway line that borders the property to the south.

The Project is located within an industrial area with highly developed power supply and regional distribution. The Project site has two 33kV overhead power lines which cross the Property. Capacity is sufficient for current operations however it is expected that this would need to be supplemented for future mining operations. The Project also has ready access to fresh water supplied by the South West Water utility, with a six-inch main water line crossing the site location.

Site infrastructure from prior mining and development operations includes office and warehouse buildings, and the partially refurbished New Cooks Kitchen shaft. A modern decline extends to a depth of 120 m at an average gradient of -16% (Figure 5.2). The decline extends in a south westerly direction through the Great Crosscourse fault above the historic Dolcoath mine workings and provides access to the upper Dolcoath mineralization.

Processing facilities from prior operations have been dismantled and removed.

Figure 5.2 South Crofty Project Site*

**Showing portal at entrance to decline, headframe at New Cook's Kitchen shaft, portal road access and powerlines.*
Source: *Western United Mines Ltd. 2013*

Although the Property is bordered by urban residential and industrial areas to the north, east and west, the mining operation is entirely underground. The opportunity to develop surface infrastructure is limited by the available space. To the south, land use is semi-rural dominantly grazing and rough pasture.

5.5 PHYSIOGRAPHY

The topography of the site consists of a plateau at an elevation of 102 to 116 m asl that slopes gently north toward the coast of Cornwall (Figure 5.3). The plateau is cut by north northwest trending valleys with 5 to 10 m of local relief that are drained by north flowing streams, including the Red River valley that borders the site to the immediate west. To the south of the property, the Carn Brea Granite outcrops as an east northeast trending hill which rises to a height of 228 m.

Figure 5.3 Overview of the Town of Pool and South Crofty Project Area

**Looking northwest from Carn Brea hill. Celtic Sea is visible in background.*
Photo: *Tin Shield Production Inc. 2014*

The topography in the immediate area of the site has been modified by dumping of mine waste rock over many years and by urbanization. The vegetation which develops on the modified sites is generally typical of the surrounding area, and is composed of gorse scrub, willow, acid grassland, heathland, bare ground, and wetlands. In Cornwall, gorse and willow scrub typically take the place of woodland.

6.0 HISTORY

6.1 SOUTH CROFTY MINE HISTORY

The following history of the South Crofty Project from its beginnings in the 16th Century up to the closure of the mine in 1998 is largely summarized from Hogg (2012).

6.1.1 Early History

The South Crofty Project is located in the central mining district of Cornwall, in one of the most highly mineralized regions in the world. Mining is reported to have been undertaken in the Cornwall region from before 2000 BC during the Bronze Age of Western Europe when much of the tin for the bronze copper-tin alloys was obtained from placer deposits in Cornwall and Devon.

In 1580, Ulrich Frosse was charged with exploring the possibility of mining for copper in Cornwall, working initially at Perranporth and Illogan, however, the venture was not a success. Subsequently, John Coster, a metallurgist and engineer, developed the first true copper mine in Cornwall, at Chacewater in the early 1700s.

In the 1700s, national demand for copper rose rapidly and Cornwall proved rich in ore, particularly to the north of Carn Brea in the vicinity of the present South Crofty Property. By the 1720s Cornwall was producing 6,000 tons per annum of copper ore rising to 30,000 tons per annum copper ore by 1770. The underground operations at the Cornish mines were challenged by open pit operations in Anglesey from 1768. The Cornish mines responded to this by improving pumping efficiencies and by the end of the century the region was booming with the Anglesey mines ceasing to be a threat, copper prices rising, and new technologies enhancing operating efficiencies. During this period new foundries and engineering works were established at sites such as Perranarworthal and Hayle. New ports were being constructed to ship ore, coal and timber and tramways were being laid down to serve the mining fields inland. The Redruth and Chacewater Railway opened in 1825 and carried 50,000 tons of ore in its first year from mines to the Fal estuary.

In 1836, the Caradon mines were discovered and in 1844, the rich Wheal Maria and Devon Great Consols mines were established. In the 1830s Cornwall dominated world copper production; however, by 1850 Chile's production far exceeded Cornwall's output, the North American Lake Superior mines and mines in South Australia were also developing quickly. Cornwall and Devon's peak year for copper production was 1855 to 1856, when 209,000 tons of ore were mined.

By 1860, tin was replacing copper as the most important mineral, particularly in the western mines and in 1866 the crash in the copper market led to substantial closures in the Cornish copper mining industry. Through increasing mechanisation and the adoption of efficient ore dressing technologies, mines with a significant tin content were able to continue working. Tin became increasingly important from the 1860s onwards as tin prices improved, although copper was still an important product up to the end of the nineteenth century when it was replaced by arsenic and later tungsten as the chief by-product of tin mining.

During the latter part of the twentieth century the Cornwall mining industry faced increasing challenges due to competition from abroad and fluctuations in metals prices.

6.1.2 South Crofty Mine History 19th Century to Closure in 1998

The following section is summarized from Hogg (2012). Metal mining in the district centred on South Crofty probably began as much as 400 years ago. At various times tin, copper and arsenic have been the principal products. The operation known as South Crofty was one of many small operations in the 19th century and South Crofty became a consolidator as adjoining mines failed to cope with variable metal prices and the challenges of increasing depth. A number of mines are contiguous at depth and are both flooded and hydraulically connected leading to a large volume of interconnected voids.

The neighbouring mine of Dolcoath, closed in 1922 and was acquired by the South Crofty operators in 1936, it is separated from South Crofty mine by a major fault known as the Great Crosscourse. In its latter years of operation, South Crofty entered and produced from lodes within the Dolcoath area north of the Main Lode and below previous workings.

The modern ownership history may be considered as starting in 1967 when South Crofty Ltd. became a wholly owned subsidiary of Siamese Tin Syndicate Ltd and Siamese Tin's subsidiary, St. Piran Ltd. This change of ownership was the start, in 1969, of a £1 million programme to increase ore hoisting capacity and to make substantial improvements to the mill. By 1975 the mill was processing more than 200,000 tons of ore annually (including some from Pendarves mine) to yield around 1,500 tons of tin concentrate annually.

In mid-1982, the company was acquired from St. Piran by Charter Consolidated, which subsequently disposed of 40% of its holdings to Rio Tinto Zinc (RTZ). These holdings were vested in a new holding company, Wheal Crofty Holdings Ltd, with the same proportion of ownership. Then in 1984 RTZ acquired Charter's 60% interest and South Crofty became part of Carnon Consolidated Ltd.

In October 1985, the price of tin dropped dramatically on the world markets following the collapse of the International Tin Agreement. Carnon rationalised the operations, involving closure of the nearby Pendarves mine which had supplied ore to the South Crofty mill. With a diminishing ore supply, this mill was progressively shut and by 1988 all South Crofty ore was trucked for processing at Wheal Jane.

As well as a reduction in manpower, the mines were rationalised and a programme of modernisation, started by RTZ before the price crash, was stepped up. This was made possible by the co-operation and financial support of the Department of Trade and Industry (DTI) in the form of loans for the capital improvement. The majority of this capital was put into the South Crofty mine. In addition, RTZ also provided a loan to fund the operating losses.

Carnon became privately owned in June 1988 when the business and assets of the group were purchased from RTZ through a management buy-out. A trust was established for the benefit of the employees who received twenty percent of the equity. Carnon Holdings Limited was incorporated at this time.

In February 1991, the DTI stopped all further support of capital projects. The company substantially reduced labour costs which, coupled with a small rise in the tin price, allowed the mine to continue operating at a small loss. The losses were funded through the sale of surplus land and redundant assets. In 1994 South Crofty was purchased by Crew Natural Resources of

Canada, and the New Roskear shaft took over from the Robinson Shaft as the secondary egress shaft.

During the time of RTZ's control, efforts were made to introduce trackless mining and a decline was commenced from the Tuckingmill valley south east toward the main South Crofty workings with the intention of re-accessing and examining the upper levels of the mine. After about a kilometre this was abandoned but the decline is a significant point of entry for the modern workings and was subsequently extended by WUM.

During the last years of operation, the mine effectively became trackless with two declines driven below the bottom of the main vertical shaft (New Cook's Kitchen) to the north and west to access lodes within Dolcoath and to the north of the older Dolcoath workings. These lodes are known as the Roskear 1 to 6 lodes, and the Dolcoath South Middle and North lodes. The focus of operations thus became deeper and further removed from the main South Crofty workings.

After several years of depressed tin prices, South Crofty Ltd announced in August 1997 that closure was imminent, and closure was completed by March 1998 and the mine was allowed to flood. At the time of its closure in 1998, South Crofty was the last remaining working mine in Cornwall.

6.1.3 South Crofty Mine History and Ownership after 1998 Mine Closure

The following section is compiled from Hogg (2012), information in the public domain, and material provided by WUM.

The South Crofty project was acquired by Baseresult Holdings Limited (Baseresult) in 2001. Baseresult was a private company formed by a group of investors to develop the project.

Subsequent to the acquisition by Baseresult, the South West Regional Development Agency, ("SWRDA") established by the UK Government, came to the conclusion that the region should no longer be investing in mining. Several years of negotiation followed, with the regulatory authorities favouring complete cessation of mining activity at South Crofty and redevelopment of the site. In 2007, this concept was overturned and the mining permits effectively reconfirmed. The SWRDA was disbanded. The surface area for the construction of the process facility was approved in 2011 and the Mining Permit was approved in 2013. This is not a current issue. The SWRDA was an unelected "quasi-autonomous non-government organisation" or "quango" that unilaterally decided that the South West of England no longer needed mining. It attempted for many years to compulsorily purchase the surface land from WUM in order to redevelop the land. WUM fought every legal challenge put in its way by SWRDA, which culminated in a Public Enquiry in 2007, and SWRDA lost. Following the Public Enquiry, WUM was finally able to negotiate a mutually beneficial redevelopment plan with the local authorities that allowed both mining and the re-generation of the Camborne-Pool area to co-exist. SWRDA was finally disbanded in 2010, the conditional surface planning permission was granted by Cornwall Council in 2011 and the underground permission granted in 2013. The situation today is that the Council remains supportive of mining in the area and the Mineral Planning Authority is actively working with WUM to implement the surface consents.

In November 2007, Baseresult formed a 50:50 joint venture with Galena Special Situations Fund ("GSSF") with GSSF providing financing through Cassiterite Ltd. ("Cassiterite"), a special

purpose company. Ownership of the Project was transferred to WUM, owned by Cassiterite and Baseresult.

In May 2011, Baseresult and Cassiterite entered into an earn-in agreement with Celeste Mining Corporation ("Celeste"), a Canadian Company listed on the TSXV and trading under the symbol "C". The earn-in resulted in the incorporation of a new entity, Cornish Minerals Limited ("CML"), which held 100% of WUM and was to be funded by staged investments by Celeste. In September 2011, Celeste completed the payment for an initial 25% interest in CML and in June 2012, Celeste provided notice that it was exercising an option to increase its ownership to 60% of the project. However, Celeste did not provide the associated funding to increase its interest and on June 5, 2013, Celeste was served with a notice of default under the earn in agreement. Subsequently, the directors of WUM took the decision to place WUM into administration.

6.2 HISTORIC EXPLORATION

As observed by Kneebone (2008) and Hogg (2012) up to the mid-1980s, there was limited geological mapping or exploration management input at South Crofty Mine. Lodes were followed and mined as they were intersected in underground workings and little effort was made to quantify mineralization. Until the collapse of tin prices in the mid-1980s there was little incentive to improve technical services, mining methods, working practices or to carry out systematic exploration and evaluation of areas beyond the operating mine because South Crofty Mine had operated profitably and was deemed to have adequate "reserves".

There has been very limited surface drilling at the South Crofty Project. Hogg (2012) notes that much of the underground drilling in the twentieth century was essentially horizontal or at a slight downward inclination from workings that were already deep. This tended to encourage horizontal development of the mine and increase in depth. It is of note that the lodes last worked by South Crofty in the western part of the mine were all discovered by essentially horizontal drilling and had not been explored at higher levels. The Dolcoath South, Middle and North lodes are now known to be capped by an elvan intrusion several hundred metres above where they were last mined, while the Roskear lodes, of which there are at least 6, were developed at depth by South Crofty and in the 19th century near surface as the Roskear mine. Between the near surface and deep lodes, there are several hundred meters of lode that have never been explored.

The historic database for the South Crofty Project is very large. An estimated 3,000 drill holes (87,000 m) and 45,000 underground channel samples have been compiled by WUM.

Exploration and drilling by WUM from 2008 to 2013 is reported in Section 9 and 10.

6.3 HISTORIC PRODUCTION

Production from the South Crofty Mine between 1906 to its closure in 1998 is summarised in Tables 6.1 and 6.2 from Kneebone (2008). Kneebone's data shows that average annual production in the period 1984 to 1998 was 191,200 tons at an average grade of 1.31% Sn and that a total of 9,976,171 tons at an average grade of 1.0% Sn were mined between 1906 and 1998.

TABLE 6.1 PRODUCTION FROM THE SOUTH CROFTY MINE BETWEEN 1906 AND 1998				
Period	**No. of Years**	**Ore (tons)**	**Annualised Production (tons /annum - average)**	**Sn %**
1984 to 1998	14	2,676,864	191,200	1.31
1934 to 1984	50	4,956,067	99,100	0.90
1906 to 1934	28	2,343,240	83,700	0.77
Total	**92**	**9,976,171**	**108,400**	**1.00**

Source: *Kneebone 2008*

TABLE 6.2 PRODUCTION OVER THE LAST 14 YEARS AT SOUTH CROFTY MINE		
Year	**Ore (tons)**	**Sn %**
1984	247,260	0.88
1985	198,120	0.90
1986	238,320	1.18
1987	214,692	1.27
1988	159,420	1.33
1989	199,356	1.48
1990	204,696	1.54
1991	153,423	1.61
1992	169,908	1.49
1993	175,356	1.46
1994	179,592	1.25
1995	180,192	1.27
1996	175,200	1.48
1997	181,320	1.42
Total	**2,676,864**	**1.31**

In addition to the South Crofty mine production, the Dolcoath Mine operated as an independent mine from 1895 to 1921. During this period 2,135,470 tons of ore were crushed at a grade of approximately 2% Sn.

6.4 HISTORICAL ESTIMATES

6.4.1 Owen and Leboutillier (1998) Closure Estimate

In March 1998, M. Owen, Chief Geologist and N. LeBoutillier, Senior Mine Geologist, completed a closure estimate for the South Crofty Mine (Owen and LeBoutillier, 1998). The estimate was prepared according to the mines operational policy at the time of closure in 1998. The estimate predates the introduction of National Instrument 43-101 (NI 43-101). A Qualified Person (QP) has not carried out sufficient work to verify these historical estimates as current mineral resources and therefore, the company is treating the numbers as historical and indicative only, and as such the estimates cannot be relied upon.

The historical estimate is based on a variety of sampling methods including drilling, chip, and channel sampling from within drives, crosscuts, raises, and other areas surrounding stopes planned for mining. The estimate also contains old pillars and other remnants in the totals. The tonnage, average metal grades and thickness for all discrete mineralized zones or subzones were estimated based on a longitudinal sectional resource calculation methods then summarised into a tabular format for the final reporting of the estimated reserves. P&E has reviewed the longsection drawings and summary tables that are the basis of the estimates.

Underground production at South Crofty ceased on Friday, March 6, 1998 at the end of the night shift and the closure estimate summarized in Table 6.3 is based on "reserves" and resources at the time of closure.

TABLE 6.3
HISTORICAL ESTIMATE AT SOUTH CROFTY – OWEN/LEBOUTILLIER

Category	Tonnes (t)	Sn%
Proven Reserve	93,800	1.66
Probable Reserve	636,950	1.45
Reserve (Prov + Prob)	730,750	1.48
Inferred Resource	2,172,850	1.48

The Owen and LeBoutillier (1998) estimate includes detailed tables of tonnage and grade for individual resource blocks that are identified on longsections for each of the mineralized lodes. The estimate utilizes definitions outlined in US Geological Survey circular No. 831 as a basis of classification. Measured reserves blocks are fully developed for evaluation and fully sampled. Owen and LeBoutillier (1998) define Indicated reserve blocks as being partially developed and partially sampled and note that indicated blocks may extend above and rarely below the lode drive. Inferred blocks have no development or incomplete development and are based on available lode intersections and assumed continuity based on geological evidence.

The Owen and LeBoutillier (1998) estimate was prepared based on a cut of grade of 1.00% Sn and a minimum mining width of 1.0 m true width. Where lode widths were less than 1 m, wall rock grade was applied to achieve minimum mining width. High grade assay cutting was used on a lode by lode basis and ranged from a low of 4.0% Sn to a maximum of 10.0% Sn. A bulk density of 2.77 t/m^3 was used for granite hosted lodes and a bulk density of 2.85 t/m^3 was used for killas (metasedimentary) hosted lodes.

Recent drilling from 2008 to 2013 at Dolcoath, and the increase in resources there, has rendered the 1998 estimate out of date. In addition, the current Resource Estimate reported in this study was prepared using different parameters such as cut-off and metal pricing and used a block model estimation methodology.

6.4.2 Additional Historic Estimates

A number of known historical mine workings in addition to South Crofty and Dolcoath are included in, or adjacent to, the area of the WUM operating permissions. These past-producing mines include the Highburrow, Carn Brea, and Barncoose mines that are not directly connected to the workings of Dolcoath and South Crofty but could at a later stage be accessed from them.

The Micromine (2011) report references a 1988 study by A. Lewis, Chief Geologist and Technical Services Superintendent of Carnon Consolidated Tin Mines, a wholly owned subsidiary of RTZ. As documented by Micromine (2011), Lewis described historic estimates at Highburrow, Carn Brea and Barncoose as defined by United States Geological Survey Circular No. 831. These historic estimates represent additional exploration targets on the property.

P&E understands that the past-producing Highburrow, Carn Brea and Barncoose mines are within the South Crofty property but has not verified the location of these past producing mines. P&E has not reviewed any of the data including sections or plans from which the additional historic estimates for the past producing mines and considers the historic estimates in this section of the report to be exploration targets.

As documented in the Micromine (2011) report, the Highburrow Lode system is the easterly extension of the Dolcoath Main Lode and covers a strike distance of 2 km from the Tuckingmill Valley in the west to a point just east of the old Portreath railway (South Crofty grid 700W to 1300E). Micromine (2012) reported that the Highburrow Mine has historic estimates ranging from a minimum tonnage of 970,384 to a maximum of 2,698,631 at a range of 1.0 to 1.4% Sn. It is not clear if these are metric tonnes or imperial tons. A Qualified Person (QP) has not carried out sufficient work to verify these historical estimates as current mineral resources and therefore, the company is treating the numbers as historical and indicative only, and as such the estimates cannot be relied upon.

Mineralization at the past-producing Barncoose mine has been estimated for 1100E to 1900E from surface to a depth of 450m. Micromine (2012) reported that the Barncoose Mine has a historical estimate ranging from a minimum tonnage of 20,110 to a maximum of 172,368 at a range of 1.0 to 1.15% Sn. A Qualified Person (QP) has not carried out sufficient work to verify these historical Estimates as current mineral resources and therefore, the company is treating the numbers as historical and indicative only, and as such the Estimates cannot be relied upon.

On the immediate northern flank of the Carn Brea Granite a series of lodes have been mined for tin. Micromine (2012) reported that the Carn Brea Mine has a historical estimate ranging from a minimum tonnage of 24,930 to a maximum of 209,412 at a range of 1.0 to 1.15% Sn. A Qualified Person (QP) has not carried out sufficient work to verify these historical Estimates as current mineral resources and therefore, the company is treating the numbers as historical and indicative only, and as such the Estimates cannot be relied upon.

6.5 PREVIOUS NI 43-101 RESOURCE ESTIMATES

Micromine Limited ("Micromine") in London, UK, was engaged by Celeste to produce NI 43-101 Resource Estimates and Technical Reports in 2011 and 2012. These estimates incorporated results of drilling by WUM and focussed on the Upper Dolcoath lodes, west of the Great Crosscourse fault and above approximately 400 m depth from surface. These Dolcoath "Upper Lodes" were the focus of exploration for WUM and WUM considered they offered the most immediate potential to advance. It is important to note that the Micromine 2011 report (Hogg, 2011) and Micromine 2012 report (Hogg 2012) considered only the Upper Dolcoath Lodes and therefore are only a subset of the mineralization considered in the historical Owen and Leboutillier (1998) closure "reserve". Furthermore, the Micromine (2011) and Micrmine (2012) resource estimates used 0.3% SnEq and 0.2% SnEq cut-off grades respectively. These cut-off grades are considerably below the historical 1% Sn cut-off used in historical estimates. The 2011

Micromine Report estimated the Upper Dolcoath resource at 1,331,000 tonnes of 0.44% Sn, 1.08% Cu and 0.66% Zn, or 0.88% SnEq in the Inferred Category at a 0.30% SnEq cut-off (Table 6.4).

TABLE 6.4
MICROMINE DOLCOATH RESOURCE ESTIMATE – MARCH 2011

Category	Cut-off SnEq%	Tonnes	Bulk Density	SnEq %	Sn %	Cu %	Zn %
Inferred	0.3	1,330,982	3.06	0.88	0.44	1.08	0.66

The Sn equivalent (SnEq) calculation for the Micromine (2011) was based on commodity prices and assumed equivalent metal recovery for Sn, Cu and Zn:

%SnEq = Sn grade + (Cu grade*0.354) + (Zn grade*0.091)

In 2012, Celeste engaged Micromine for an updated Dolcoath resource estimate and technical report. The 2012 estimate included the results of 121 diamond drill holes for 23,067 m, and two underground channels cut for 53 m. The 2012 Micromine resource (Table 6.5) updated the initial June 2011 resource estimate and utilized the data from 59 additional drill holes.

TABLE 6.5
MICROMINE DOLCOATH RESOURCE ESTIMATE – MARCH 2012

Category	Cut-off SnEq%	Tonnes	Bulk Density	SnEq %	Sn %	Cu %	Zn %
Inferred	0.2	2,469,000	3.03	0.68	0.46	0.54	0.23

The SnEq for the Micromine 2012 report was based on spot commodity prices and also assumed equivalent metal recovery for Sn, Cu and Zn.

SnEq% = Sn% + (Cu%*0.364) + (Zn%*0.097)

For the 2012 estimate, Micromine used a 0.2% SnEq cut-off grade. A total of seven areas were modelled for tin (Dolcoath Middle, Dolcoath South, Dolcoath South-South Branch, Dolcoath 'Flat', Dolcoath North Entral, Dolcoath South Entral and Dolcoath Main). Eight areas were modelled for Cu and Zn (Dolcoath North, Dolcoath Middle, Dolcoath South, Dolcoath South-South Branch, Dolcoath 'Flat', Dolcoath North Entral, Dolcoath South Entral and Dolcoath Main).

Grade domain modelling was completed for Sn, Cu and Zn, with a minimum width of approximately 1.0 m. Where appropriate, geology was used in combination with grade values to assist in lode interpretation.

Potentially economic mineral resources were reported for a marginal cut-off grade of 0.2% SnEq based on the cost of mining and processing the mineralization and the selling price of the final product. Metal prices were based on LME 3-year trailing averages as of July 16, 2012. The cut-off grade for reporting of resources at Dolcoath was established using Sn equivalent grade (SnEq%), and block revenue factors including metal recovery adhering to best practices and NI 43-101 reporting requirements in order to satisfy the criterion of "potential commercial extractability".

Classification of interpolated blocks was undertaken using the following criteria:

- Interpolation criteria based on sample density, search and interpolation parameters
- Assessment of the reliability of geological, sample, survey and bulk density data
- Robustness of the geological model
- Deposit type
- Drilling and sample density
- Understanding of grade continuity.

From the above factors, Hogg (2012) was of the opinion that the Inferred category was an appropriate resource classification at that time. There were a number of minor issues relating to data verification and QA/QC which needed to be addressed to increase confidence of input data, particularly Zn and to a lesser degree Sn prior to increased resource classification. Sample spacing and drill hole density within domains was considered wide and the total number of assays in a number of domains was low. Grade continuity remains poorly understood due to the wide spacing and low number of samples per mineralized domain, rendering variography and determination of grade continuity impossible at that time. The current Resource Estimate for the Dolcoath Main lodes produced by P&E, and detailed in this report, supersedes the Micromine (2011) and Micromine (2012) estimates.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The geology of Cornwall is dominated by Paleozoic granitic intrusions that are part of Cornubian batholith and the metasedimentary and metavolcanic rocks, known locally as "killas", that form the metamorphic aureole and host rocks of the intrusions. This assemblage was formed in the Variscan (also known as Hercynian) orogenic event. Crustal thickening resulting from deformation of the Devonian flysch-type sediments and associated volcanics during the initial phases of the Variscan orogeny in the Devonian and Carboniferous periods, was followed by lithospheric extension, crustal subsidence and anatexis of metasediments to form Cornubian granitoid magmas in the Permian (Shail and Moon 2014). The age of the Cornubian batholith is well constrained from both stratigraphic relationships and radiometric dating at 300 to 275 Ma and corresponds with the late stages of the Variscan orogeny in the early Permian period (Chesley et al., 1993).

On a basis of geophysics, the Cornubian granite is interpreted to extend for greater than 200 km from the Dartmoor area, Devon in the east to the Isles of Scilly off the Cornish coast in the west. The surface geology (Figure 7.1) defines a series of granite plutons and stocks separated by "killas" (metasedimentary rocks). In the sub-surface, it is thought that many of granitic plutons are joined at depth with the killas having granitic rocks beneath them at depth (Shail and Moon, 2014). Overall, the granitic intrusive body has a northeast trending long axis.

Figure 7.1 Regional Geology

Source: *WUM 2014*

The Cornubian granite is coarse grained and enriched in a variety of elements including potassium, lithium, uranium, thorium, tin, tungsten, copper, chlorine, fluorine, and rare earth elements. The enrichment in radiogenic elements such as potassium, uranium and thorium and strong thermal activity has resulted in it being classified as a high-heat producing (HHP) granite. The British Geological Survey has recently completed airborne radiometric and total field magnetic surveys of southwest England as part of the TELUS SW program. Products of the survey include airborne radiometric maps that show distribution of various radioactive elements including potassium shown in Figure 7.2 that effectively map the surface exposure of granitic intrusions.

Figure 7.2 Airborne radiometric map of southwest England showing Potassium (K) distribution

Source: *British Geological Survey "TELUS SW Project" overlain on Google Earth 2014.*

The enriched radiogenic element content of the Cornubian Granite combined with its metal content are a key factors in the development of the Cornwall mineral deposits. The radiogenic element enrichment and HHP characteristics resulted in a slow crystallization process and possibly internal reheating allowing for efficient fractionation of the contained metals into the residual late magmatic phases and fluids.

7.2 LOCAL GEOLOGY

The following description of the local geology of the South Crofty Project area is primarily summarized from Hogg (2012).

The Paleozoic geology of the South Crofty project area consists of killas (metasedimentary and minor metavolcanic rocks) and granite of the Cornubian batholith (Figure 7.3). The project area lies on the north side of the Permian Carn Brea Granite that outcrops on the Carn Brea hill and is thought to be connected with the Carnmenellis Granite and the larger Cornubian batholith at depth. Locally, the killas are considered to be part of the Devonian Mylor Formation that consists primarily of slate and siltstone and is intruded by Devonian metamorphosed mafic rocks.

The surface of the South Crofty Project area is situated on "killas", the series of metasedimentary and metavolcanic rocks and associated hornfels and skarns, that occur in close proximity to the granite contact. At depth, the granite underlies the whole project area. The depth to the contact with the granite increases to the north, with the contact surface striking east-northeast and dipping to the NNW at 30° to 40°. Rolls and ridges along the granite contact are thought to have influence on the location of mineralization.

The lodes of the South Crofty deposit and numerous nearby mines generally strike east-northeast and parallel the strike of the granite/killas contact. The lodes occur in both the granite and the overlying killas and the character of the lodes changes depending on the host rocks. Within the granite, the principal mineral of economic significance is cassiterite, whereas above the granite contact, copper and zinc sulfide mineralization is developed.

A series of northwest trending faults with associated mineralization, locally known as "Crosscourses" are considered to be related to Triassic rift basin development at 240 to 220 Ma. The Great Crosscourse is a late fault that bisects the South Crofty Project area and is associated with an approximately 100 m strike slip movement. The Great Crosscourse had a significant influence of the historical mine development of the South Crofty Project since the South Crofty Mine was developed on the east side of the fault and the Dolcoath Mine on the west side and the two mines were not hydraulically connected.

Figure 7.3 Geology of the South Crofty Project area

Source: *WUM 2014*

7.3 DEPOSIT GEOLOGY

The following description of the South Crofty Deposit is primarily from Kneebone (2008).

Mineralization at South Crofty is primarily in the form of "lodes" consisting of dominantly east-northeast striking fissure veins and associated mineralization that typically occupy steeply dipping normal and reverse fractures or faults. Lodes may persist for 1 to 2 km in strike length with 600 to 1,000 m dip extents. The section through the New Cook's Kitchen Shaft (Figure 7.4) shows the complexity of the lode fissure relationships with both north and south dipping structures that are joined by bridging veins. There is a general reduction in the number of structures with depth. The deep fractures, tend to branch and "horsetail" upon entering the shallower horizons. Many of the lodes display curved surfaces in section and may change dip directions in the granite and killas.

Figure 7.4 Section through the South Crofty Mine at the New Cook's Kitchen Shaft

Source: *N. Leboutillier, 1998*

7.4 MINERALIZATION

Within the mine workings, Kneebone (2008) identified five main phases of mineralization, that in order from oldest to youngest are:

i. An early black tourmaline (schorl) phase, with thin, tin-bearing stringers of schorl emplaced throughout the fracture zones. The tungsten bearing (greisen type mineralization) quartz floors and pegmatites of Pegmatite Lode and the North Pool Zone are of similar age.

ii. Tourmaline to Chlorite phase consisting of:
   a. A blue tourmaline phase that carries the majority of the tin mineralization in the form of fine-grained cassiterite, which may be in discrete seams, veinlets or disseminated grains. This phase shows evidence of very rapid crystallisation and often displays brecciation textures related to explosive decompression; and
   b. A chlorite phase. In this phase (which often overprints the 2a phase), dark green crystalline chlorite is the dominant gangue mineral. It often carries coarsely crystalline cassiterite, as disseminations and seams.

iii. A tin barren fluorite phase that occupies sections of the lodes with 'caunter orientation', where the lodes have been faulted by later tensional wrench faults. These intralode segments (having the same strike as east-west trending caunter lodes) have been infilled with a fluorite/haematite/earthy chlorite/quartz paragenesis, in substitution for absent earlier tin rich phases of mineralization.

iv. A caunter lode phase that represent later mesothermal/epithermal mineralization emplaced in east-west trending fractures. These lodes are typically poor in cassiterite, carrying a gangue of early amorphous chlorite/haematite/ fluorite/quartz, with copper/lead/zinc/bismuth base metal mineralization. Where they cross the earlier lodes they fault them, often with considerable displacement.

v. A late crosscourse phase with displacement and mineralization that post-dates phases 1 to 4. Crosscourses have a rough northwest orientation and carry an epithermal paragenesis of chalcedonic silica with earthy chlorite, haematite and minor amounts of marcasite and occasional copper and bismuth sulphides.

Kneebone (2008) subdivided South Crofty lode types as follows:

i) Type I Lodes - These are lodes predominantly showing phase 2a. mineralization. They are typified by certain sections of Dolcoath South Lode, North Lode and Roskear A Lode.

ii) Type II Lodes - These lodes show a higher proportion of haematite /chlorite / fluorite enrichment as well as having mineralization phases 2a. and 2b present. They show areas consisting largely of phase 3 type mineralization. They are typified by certain sections of Providence Lode, Dolcoath North Lode, Roskear B Lode, Roskear D Lode and Roskear South Lode.

iii) Type III Lodes - "Caunter" or "Guide" lodes which carry an assemblage of chlorite / hematite /fluorite with minor cassiterite and variable copper, lead, zinc and bismuth phases. These structures were sometimes worked for copper in the shallower old workings. A typical example is the Reeve's Lode.

iv) Type IV Lode Zones - Lode zones that resemble stockwork veins and are characterised by quartz /cassiterite / tourmaline assemblages. The wallrocks are pervasively altered and often carry significant mineralization. They are typified by certain sections of No.2 Complex, 3ABC Complex, 3B Pegmatite Lode and North Pool Zones.

Kneebone (2008) reports that wallrock mineralization is widespread, although not ubiquitous. Wallrock alteration is encountered in the form of:

i) tourmalinisation (both pervasive replacement and veining);

ii) chloritisation (usually involving predominantly micas and to a lesser extent felspars);

iii) hematisation (often as hematisation of chlorite, micas and felspars or as later hematisation of earlier pervasive chloritisation).

Pervasive albitisation has also been noted in association with zones of interaction of certain of the Lode / Quartz "Floors" / "Pegmatite Zones". Cassiterite (tin) mineralization is often, though not always, present in these wallrock alteration zones. The cassiterite is present variously as veinlets, and disseminations. These incidences of mineralization are usually seen to be associated with reactivation of lode fissures and/or later mineralization phases within the lode fissures. Mineralized wallrock can, in many locations, constitute a major component (or indeed the major component) of the mineralized structure. In some instances, the greater part of the tin mineralization present is located in the mineralized wallrock, rather than in the lode fissure material.

Kneebone (2008) stresses that the lodes of the district tend not to fit within any one single "classification" as above. Being multiphase structures, they more often than not exhibit domains of more than one type over their spatial extent. The subdivisions as above are therefore best considered as a method of quickly and conveniently describing the mineralization domain(s) at a particular location within the extent of a lode.

8.0 DEPOSIT TYPES

The South Crofty Sn deposit is an intrusion related, structurally controlled, vein-hosted mineralization type.

The geological model for the deposit type is described by Kneebone (2008) (Figure 8.1). The protracted cooling of the batholith and thermal energy from radioactive decay are significant factors in the scale and diversity of the Cornwall mineralization. The main phase of mineralization lasted well over 20 million years and hot brines can still be encountered at depth within the granite, as experienced by miners on the 380 fathom level of the former South Crofty Mine.

An early pegmatite phase of mineralization (ca. 285 Ma) carry quartz and feldspar together with wolframite, arsenopyrite, löllingite, native bismuth and molybdenite. At this time metasomatic fluids and vapours escaping from the granite led to the development of skarn rocks on the granite margins. Still in the early stage of mineralization, the pegmatites were followed by a phase of greisen-style mineralization. Hydraulic fracturing in some of the cusp areas led to the development of sheeted greisen veins (both endogranitic and exogranitic) in many of the granite cupolas. The quartz floors of South Crofty and the replacement zones of North Pool Zones and the 3ABC pegmatite complexes are related to this phase and show a similar primary mineralogy. Larger vein structures such as South Crofty's Roskear Complex, North Pool Quartz lode and parts of North Pool B2 vein system are also of this type.

The principal mineralization phase was coeval with the second magmatic event around 270 Ma. This phase was more diverse than the first phase and gave rise to the extensive hydrothermal vein system of the Cornish mineralization. The mixing of magmatic, meteoric and connate fluids via convection cells brought in a great volume of metals, together with boron, and sulphur leached from the killas. The increase of fluid pressure resulted in the fracturing of the granite carapace and the rapid movement of mineral-depositing vapours and fluids along these fissure systems.

With the deposition of minerals, the fracture became sealed until the fluid pressure reached a high enough level to cause failure along the plane again. This series of conditions "crack sealing" and hydraulic failure were repeated many times and also gave rise to highly brecciated lode textures displaying characteristics of multiphase deposition. The early high temperature minerals deposited in the lodes within and adjacent to the granite/killas contact were found in the pegmatite style of mineralization, chiefly quartz, feldspar, wolframite, arsenopyrite/löllingite, cassiterite and tourmaline.

Deposition was accompanied by pervasive tourmalinisation of the wallrocks. At higher levels, copper mineralization becomes important with the deposition of a mesothermal assemblage including chalcopyrite, chalcocite, chlorite, fluorite and sphalerite and at higher levels again, there is a gradual change to an epithermal suite with the deposition of galena, stibnite, haematite and siderite.

A change in stress conditions in the Lower Permian resulted in the development of a second fracture system trending northwest-southeast. These are the "caunter lodes" that displace earlier vein systems and are dominantly mesothermal in character.

Late extensional Crosscourse faults locally offset many of the lodes. These faults may be infilled with clay or chalcedony, quartz, haematite and chlorite. Some Crosscourse are mineralized, carrying a mesothermal to epithermal suite of minerals including galena, chalcopyrite, marcasite, barite and fluorite.

Figure 8.1 Styles of Primary Tin Mineralization in Cornwall

Source: *Kneebone 2008, after Hosking 1969*

9.0 EXPLORATION

9.1 WUM PROGRAM 2008-2013

WUM re-established the decline at the Project site and since 2008 has extended the existing decline a further 380 m to a total depth of 120 m below surface at an average gradient of 1 in 6. At a depth of 120 m, a spine drive was commenced and progressively developed to a length of 130 m. The decline extends in a south-westerly direction through the Great Crosscourse above the historic Dolcoath workings and provides exploration access to the upper Dolcoath area lodes. The decline and spine drive has served as an access point for the 31,000 m underground drill program conducted by WUM.

9.2 TIN SHIELD PROGRAM

As of the effective date, Tin Shield's exploration has been limited to assaying of approximately 720 samples from drill core intersecting the Upper Dolcoath area lodes. These assays are from holes drilled by WUM in late 2012 and 2013, and have been incorporated into the assay database. Sample preparation, analyses, security and QA/QC are discussed in Sections 11 and 12.

10.0 DRILLING

This section reports on 31,000 m drilling conducted by WUM between 2008 and 2013. Tin Shield has not conducted any drilling on the South Crofty project.

The ability to drill from surface is limited by the urban development of the surface overlying a significant part of the Project Mineral Rights. Furthermore, historically there has been extremely limited surface exploration drilling. WUM's approach was to use the decline and spine drive for all of its modern exploration drilling. The decline is located in un-mineralized ground with the target mineralized lodes located to the north and south of the decline. Opportunity exists to site further exploration drilling at surface within the licence area, or with permission from local landowners.

The core recovered from the holes ranged from sizes PQ (85 mm core) to NQ (48 mm core) but was typically HQ (64 mm core). The drill holes were collared at 10 underground locations along the decline over a strike length of approximately 750 m.

A total of 157 holes for 31,000 m were drilled. Drill holes ranged in length from 4.2 m to 450 m with an average of 197 m. Standpipes were used to limit water ingress as the drilling crossed wet and /or flooded areas of the mine and old workings. The standpipes also limit the passage of noxious gases which can accumulate in the drill cuts. Recovery for the drilling was generally excellent, in excess of 95% recovered core except, however, in those areas which intersected void, or old workings which had been filled. Evidence of fill was recovered as the material was homogenised to a standard size with a high degree of roundness. A number of holes were lost or stopped short of target due to drilling difficulties associated with broken ground conditions surrounding old workings.

Hole surveys were taken approximately every 6 m for many of the holes; however, some holes were only surveyed at the end of hole. The inclination of holes ranged from +24.6° and -78.9°. The bulk of the holes were targeted either north of the decline with azimuths between 300° and 360° or between 130° and 204°.

A total of 6,591 m was sampled and assayed. Typically, only visibly mineralized intersections were assayed. Samples were collected on a nominal one metre basis in those areas that are mineralized, and two metres elsewhere. Samples were broken on lithological boundaries with a minimum length of 20 cm, where appropriate so that samples do not cross geological constraints and remain representative.

The drilling was designed to provide further samples and information on previously interpreted lodes, and the angles of intercept were designed to be normal to these lodes. The interpreted lodes conform to the established mineralized structures in the area, typically dipping north at 60 to 80°, occasionally dipping south at 60 to 80° with conjugate structures at flatter dips. There are some shallow (30°) dipping lodes in this area. With the mineralization style, and the drilling angles, several intersections were drilled along the structures and in these cases apparent thicknesses are in excess of the known true thickness from other historically worked lodes in the system.

Significant intercepts from the WUM drilling program that were reported by Celeste in press releases dated December 18, 2012 and January 31, 2013 are presented in Table 10.1. This table has selected intersections with generally greater than 1 m length and greater than 0.5% SnEq.

Table 10.1 illustrates that in the Upper Dolcoath area, the lodes have highly variable Sn/Cu/Zn ratios and that drill holes typically intersected several lodes. A number of the holes in Table 10.1 had core loss due to old workings. The holes reported by Celeste were all drilled south of the decline and intersected the South Entral, Dolcoath Main, Dolcoath South-South, and Interstitial Lodes.

TABLE 10.1
SIGNIFICANT(1) DRILL INTERCEPTS FROM THE WUM UNDERGROUND DRILLING PROGRAM REPORTED IN 2012 AND 2013

Hole	Azo/Inclo	From (m)	To (m)	Width (m)	Sn (%)	Cu (%)	Zn (%)	SnEq(2) (%)	Lode Interpretation(3)
0908	174/-14	165.30	166.35	1.05	0.10	1.05	0.12	0.50	Dolcoath Main
0909	174/-26	105.56	108.56	3.00	2.13	1.02	0.02	2.50	South Entral
1210	158/-30	103.81	112.81	9.00	0.37	0.97	0.05	0.72	South Entral
1211	158/-45	121.97	124.97	3.00	0.55	0.75	0.03	0.82	South Entral
1211		165.97	167.97	2.00	0.49	0.05	<0.01	0.51	South Entral
1211		171.97	176.97	5.00	0.21	0.78	0.02	0.50	South Entral
1211		281.93	283.93	2.00	0.57	0.93	0.02	0.91	Main Lode
1213	196/-25	113.44	118.44	5.00	0.32	1.20	0.02	0.75	South Entral
1213		286.51	290.11	6.50	0.18	0.95	0.87	0.61	Main Lode
1214	173/-35	103.25	106.25	3.00	0.18	1.40	0.83	0.77	South Entral
		131.83	133.83	2.00	0.30	2.10	0.01	1.06	South Entral
1215	171/-44	116.23	118.23	2.0	0.71	0.59	0.10	0.93	South Entral
1215	171/-44	246.0	247.0	1.0	0.22	2.64	0.08	1.18	Dolcoath South South
1215	171/-44	306.64	307.43	0.79	1.52	0.44	0.03	1.68	Main Lode
1216	191/0	144.09	150.00	5.91	0.57	0.11	0.22	0.63	Interstitial Lode
1216	191/0	182.37	184.12	1.75	0.44	0.11	3.00	0.76	Dolcoath South South
1217	190/-14	90.22	93.72	3.70	0.11	1.12	5.30	1.09	South Entral

(1) Intersections are selected from Celeste press releases dated December 18, 2012 and January 18, 2013 with minimum 1.0 m and 0.5% SnEq;
(2) SnEq% = Sn% + (Cu% x 0.359) + (Zn% x 0.0927);
(3) Lode interpretations by WUM/Celeste as reported in Celeste releases.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 SAMPLE PREPARATION AND SECURITY

The following summary regarding sample preparation of the 2008 to 2014 drilling carried out at the Property was largely taken from Hirst, et al., (2014) and Hogg (2012).

The preparation of samples for analysis begins on site with mark-up of the core and recording of core recovery. During drilling, boxes are marked up by the geologist as the core is recovered for the following:

- Sample From And To;
- Lithological Breaks;
- Natural Fractures;
- Handling Breaks; and
- Losses.

Care is taken to ensure that the core is inserted the correct way round and all the pieces fit together. The box is marked with depth from and depth to, as well as with a direction of drilling. Wooden blocks are inserted to mark the end of each core run as well as mark any areas of loss, with the estimated loss recorded in these cases. Drill core runs prior to the beginning of 2011 however, were not marked at all. The lithology and mineralization of the core is described. Rock Quality Designation ("RQD") and fracture count are recorded in the logs. Logging is entered using a Compaq iPaq directly into excel spreadsheets by the geologist. No paper logs or field books are used.

Core boxes are then brought to surface in batches of eight to ten and delivered under supervision by the geologist to the core shed. Once in the core shed the box marking is checked. The axis of mineralization is marked on the core ready for sawing. Care is taken to halve the core along the axis of mineralization, to ensure the mineralization in the sample for analysis is representative of the whole.

The core is sawn in half in batches by the geologist, or by a geological technician under the geologist's supervision. The boxes are then marked with the sample identification for the half core to be analyzed, so the samples can be traced to their exact location in the boxes.

The saw used is a Vancon Core Saw. It is water lubricated during sawing, and washed down before and after use. It is not washed down between samples of the same type. It is washed down thoroughly between samples of different lithology, or different levels of mineralization, to minimize potential cross contamination. There is no compressed air or ventilation to manage dust, but the area is washed down and swept regularly.

Half core is retained in the boxes. The half core for analysis is broken to fit in heavy duty polythene sample bags. The polythene bags are marked with the sample ID, but no other identifying marks. Reconciliation between the sample ID and true information is kept by the geologist so the exact sample location and details can be recalled from the sample ID. The openings in the bags are twisted, taped, folded then zip tied over to ensure no spillage during handling or transit.

Blank samples are entered into the batches. The blank material is local granite, once thought to be barren but now known to be part of the mineralized system.

Over the various phases of drilling, quality assurance/quality control ("QA/QC") protocol has evolved and is summarized below:

- SD01-28: WAI inserted one blank and one pulp duplicate sample into sample stream of each batch.
- SD29-104: WUM inserted two blanks, one CRM and one field, coarse reject and pulp duplicate into sample stream of each batch.
- SD105-135: WUM inserted two blanks, two CRMs and one field, coarse reject and pulp duplicate into sample stream of each batch.

The samples are then delivered in batches to an independent lab for analysis.

Three laboratories have been used for the preparation of samples. Initial holes (batches SD01 to 47) were prepared at Wardell Armstrong International Laboratories ("WAI"), a then unaccredited laboratory (however now accredited) facility in Cornwall, United Kingdom; from January 2012 (SD48 to 104) samples were prepared at AGAT laboratory ("AGAT"), an accredited laboratory facility in Mississauga, Ontario, Canada and the remaining 720 samples (SD105 to 135) were prepared at SGS Cornwall and analysed by SGS in either Toronto or Vancouver.

The core shed is generally kept locked, with access from a standard door and a large sliding vehicle door. Both doors have padlocks. The keys are held by the geologist, the site manager, and the site maintenance manager. The building is in good condition and reasonably secure. The building is unheated but dry. Core is boxed on pallets, rather than on shelving, which makes access to some of the core time consuming, but the facilities are adequate for the storage and security of the core.

Before being stored, the core is photographed wet and dry on a photo board.

Once samples have been prepared, the coarse rejects and pulps are returned for storage in the core shed. Bags are marked up and stacked.

P&E considers that the sample preparation, security and analytical procedures for the South Crofty Project are adequate for the purposes of this resource estimate.

11.2 ANALYSES

11.2.1 WAI Laboratory/ X-Ray Minerals Laboratory

The sample preparation procedure followed by WAI included oven-drying and weighing the sample, as well as allocating a unique WAI Log-in number to each sample. The sample was then jaw-crushed to pass 10 mm - 12 mm, then crushed to passing -1.0 mm by a balanced roll crusher and riffle-split to obtain a subsample of around 150 g. The 150 g split sub-sample was then pulverized to 100% passing 100 µm, with half of this sample dispatched for XRF analyses and the remaining half stored as a reference sample.

The prepared samples were then sent to X-Ray Minerals Laboratory, of Colwyn Bay, Wales, United Kingdom for X-ray Fluorescence ("XRF") analysis using a Spectro X-Lab Energy Dispersive Polarised X-ray Fluorescence ("EDPXRF") Analyzer. The XRF device was fully calibrated using International Rock, Soil, Ore, Sediment, Ash, Oil, Plastic, Organic and Water standards to ensure repeatable and accurate analysis.

Samples were oven-dried if required in an oven at 80°C and around 20 g of the sample was milled with an agate ball mill at 500 rpm for five minutes in order to produce two pellets for quality control purposes. Milled samples were then weighed out to 10 g (+/- 0.2 g) and then combined in a plastic beaker with a polyvinyl alcohol (1% Moviol) or wax binder before being pressed at 15 tons for two minutes using polished stainless steel platens to produce a 32 mm pellet. The pelleted samples are oven dried at 80°C for at least two hours before being analyzed for a multi-element array including Sn, Cu and Zn.

Batches with ten or more samples had one randomly chosen sample duplicated in every ten samples from residual milled powder to check for precision.

A calibration verification check sample was also used to check the accuracy of the instrument and to assess the stability and consistency of analysis. A certified reference material ("CRM") was analyzed at the beginning of each working day, during active sample analyses, and at the end of each working day.

The measured value for each target analyte should be within +/-5 percent of the true value for the calibration verification check to be acceptable. If a measured value falls outside this range, then the CRM is re-analyzed. If the value continues to fall outside the acceptance range, the instrument's multi-channel analyzer ("MCA") is then re-calibrated, and the batch of samples analyzed before the unacceptable calibration verification is re-analyzed.

11.2.2 AGAT Laboratory

From January 2012 (batch SD48 onwards) sample preparation and analyses were carried out by AGAT. Sample preparation procedures followed by AGAT included:

Samples were delivered via courier, client drop-off or picked up by AGAT personnel or a representative of the lab. Samples received by AGAT were logged into the lab's LIMS system and discrepancies observed were noted internally, as well as reporting to the client immediately. Samples were then dried to 60°C, crushed to 75 per cent passing 10 mesh (2mm) and split to 250 g using a Jones riffle splitter or rotary split. Samples were pulverized to 85 per cent passing 200 mesh (75µm), dried and then shaken on an 80 mesh sieve with the plus fraction stored and the minus fraction sent for analysis.

All equipment was cleaned using quartz and air from a compressed air source. Blanks, sample replicates, duplicates, and internal reference materials (both aqueous and geochemical standards) are routinely used as part of AGAT's quality assurance program.

Analysis at AGAT was performed by peroxide fusion followed by an Inductively Coupled Plasma - Optical Emission Spectroscopy ("ICP- OES") finish for Sn, and four acid digest followed by Inductively Coupled Plasma – Mass Spectroscopy ("ICP/ICP-MS") finish for multi-elements including Cu and Zn.

Prepared samples were digested with perchloric acid ($HClO_4$), hydrofluoric acid (HF), and nitric acid (HNO_3), dried, heated with hydrochloric acid (HCl) and diluted to 50mL with de-ionized water.

AGAT uses its own internal QA/QC checks, routinely inserting blanks, reference materials (both aqueous and geochemical standards), replicates and duplicates.

PerkinElmer 7300DV and 8300DV ICP-OES and PerkinElmer Elan9000 and NexION ICP-MS instruments are used in the analysis. Inter-Element Correction ("IEC") techniques are used to correct for any spectral interferences.

AGAT is an independent lab that has developed and implemented at each of its locations a Quality Management System ("QMS") designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards.

AGAT maintains ISO registrations and accreditations, which provide independent verification that a QMS is in operation at the location in question. Most AGAT laboratories are registered or are pending registration to ISO 9001:2000.

11.2.3 SGS Laboratory

From August 2012 (batch SD105 onwards), sample preparation and analyses were carried out by SGS laboratories. Sample preparation was undertaken at SGS Cornwall and analysis at SGS Vancouver or Toronto. Procedures followed by SGS included the following:

Samples were delivered via courier, to SGS Cornwall for preparation, where they were received by SGS personnel and samples were then logged into the lab's LIMS system. Samples were crushed, ground and dried. As a routine practice with core, the entire sample is crushed to a nominal minus 10 mesh (2 mm), mechanically split via a riffle splitter in order to divide the sample into a 250 gr sub-sample for analysis and the remainder is stored as a reject. Samples are pulverized to 85% passing 75 micron (200 mesh) or otherwise specified by client.

Samples were then analyzed by sodium peroxide fusion and a combination of Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES), and Inductively Coupled Plasma Mass Spectrometry (ICP-MS).

Samples are fused by sodium peroxide in graphite crucibles and dissolved using diluted HNO_3. During digestion the sample is split into two and half is given to ICP-AES and the other half is given to ICP-MS. The digested sample solution is analyzed by ICP-AES and ICP-MS. Samples are analyzed against known calibration materials to provide quantitative analysis of the original sample.

SGS operates 1,350 offices and labs throughout the world. Sample processing services at SGS are ISO 17025 accredited by the Standards Council of Canada. Quality Assurance procedures include standard operating procedures for all aspects of the processing and also include protocols for training and monitoring of staff. ONLINE LIMS is used for detailed worksheets, batch and sample tracking including weights and labeling for all the products from each sample.

12.0 DATA VERIFICATION

12.1 SITE VISIT AND INDEPENDENT SAMPLING

Mr. Richard Routledge, P.Geo., of P&E, a Qualified Person ("QP") as defined by Canadian National Instrument NI 43-101 standards of disclosure for mineral projects, visited the South Crofty Project from November 17 to November 21, 2014, for the purposes of completing a site visit and due diligence sampling. Mr. Routledge held discussions with WUM staff, including general data acquisition procedures, core logging procedures and quality assurance/quality control ("QA/QC"). He also examined drill core, viewed drill hole collars in the decline for various recent drilling (not flooded), visited the Tincroft North section underground, collected core samples for independent analysis and collected digital data during the visit. There has been no material change to the scientific and technical information about the property since the November 2014 site visit as indicated in a letter from Kevin Williams, Western Union Mines Ltd, mine manager, on May 19, 2016.

Mr. Routledge collected seven samples from six drill holes during the site visit. A range of high, medium and low-grade samples were selected from the stored core samples. Samples were collected by taking a 1⁄4 split of the half core remaining in the core box. Once the samples were 1⁄4 sawn they were placed in a large polyurethane bag. The samples were delivered by Mr. Routledge to the SGS laboratory at the former Wheal Jane mine site where sample preparation was carried out. Sample pulps were shipped by SGS UK to the SGS Laboratory in Lakefield, Ontario for analysis.

Samples at SGS were analyzed for As, Sn, Cu, Zn, WO_3 and Pb by whole rock analysis using XRF.

Results of the site visit due diligence samples (for Sn, Cu and Zn only) are presented in Figures 12.1, 12.2 and 12.3.

Figure 12.1 South Crofty Project Site Visit Sample Results for Sn

Figure 12.2 South Crofty Project Site Visit Sample Results for Cu

Figure 12.3 South Crofty Project Site Visit Sample Results for Zn

12.2 QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

QA/QC protocol evolved at the Project over time and only the more recent drilling has been monitored with the insertion of QA/QC samples. The following sections describe the QA/QC data since 2010, when QA/QC monitoring commenced at batch SD01.

12.2.1 2010 – 2011 (Batches SD01-47): WAI Prep / X-Ray Minerals Analysis

Performance of Certified Reference Materials

WUM commenced inserting its own CRMs (standards) into the sample stream from batch SD29 on. Prior to this, the preparation laboratory (WAI) was inserting standards into the sample stream. Data prior to batch SD29 has not been examined.

Two CRMs were sourced by WUM from Ore Research and Exploration Pty. Ltd. ("ORE"), of Bayswater North, Australia, the OREAS 140 and 141 standards. Both standards are certified for Sn, Cu and Zn. The pressed pellet X-ray fluorescence performance gates were used for the Sn data.

There were five data points for OREAS 140 and all samples passed for Sn, Cu and Zn, with Cu displaying a slightly high bias and Zn a slightly low bias.

There were 14 data points for OREAS 141 and all samples passed for Sn and Cu, with Sn displaying a slightly low bias and Cu a slightly high bias. All samples failed low for Zn, however this will have no significant impact on the resource with assays being underestimated rather than overestimated.

Performance of Blank Material

WUM inserted its own locally sourced blank material from local granite. The granite is part of the mineralized system and does demonstrate very low grades of mineralization for the elements in question. The grades are so low however that, for all intents and purposes, the material has been considered blank.

The blank results were assessed for each element, using the average grade of a total of 88 data points as a guide. The average grades are as follows:

- Sn = 25 ppm
- Cu = 27 ppm
- Zn = 60 ppm

Data for each of the elements were plotted against the corresponding average value. The majority of results fell below or close to the average grades given above, with maximum values for Sn, Cu and Zn being 117.7 ppm, 379.6 ppm and 360 ppm, respectively. P&E considers all of the blank data to be within acceptable limits, with none of the results significantly impacting the resource.

Performance of Duplicates

WUM inserted a total of 19 field, coarse reject and pulp duplicates into the sample stream for batches SD29 through SD47. There were also 60 laboratory pulp duplicates available for examination.

Data points were charted on scatter plots and precision for all elements appear acceptable, with precision increasing with the fining of duplicate grain size.

12.2.2 2012 (Pre-August) (Batches SD48-104): AGAT Lab

Performance of Certified Reference Materials

WUM continued to use the OREAS 140 and 141 CRMs sourced from ORE of Australia. The performance gates calculated from fusion method were used for the Sn data.

There were 27 data points for OREAS 140 and all samples passed for Cu and Zn. Three samples failed low for Sn and this is considered to be of no impact to the database. Zn was noted to have a slightly low bias.

There were 29 data points for OREAS 141, with one failure each for Sn and Cu and four failures for Zn. A low bias was noted for Zn. P&E does not consider any of the failures to impact the database as all were -3 standard deviations below the certified mean value.

Performance of Blank Material

The same granitic blank material was used in 2012 and the blank results have been assessed in the same manner as the previous years.

The blank results were assessed for each element, using the average grade of a total of 102 data points as a guide. The average grades are as follows:

- Sn = 185 ppm
- Cu = 11 ppm
- Zn = 41 ppm

The majority of results fell close to the average grades given above, with maximum values for Sn, Cu and Zn given at 420 ppm, 67 ppm and 181 ppm, respectively. P&E considers all of the blank data to be within acceptable limits, with none of the results significantly impacting the resource.

Performance of Duplicates

WUM inserted a total of 51 field, coarse reject and pulp duplicates into the sample stream for batches SD48 through SD104.

Data points were charted on scatter plots and precision for all elements appear acceptable, with precision increasing with the fining of duplicate grain size.

12.2.3 2012 (Post-August) (Batches SD105-135): SGS Lab

Performance of Certified Reference Materials

Tin Shield sent a total of 720 previously unanalyzed drill hole samples to SGS. The Company used a variety of ORE CRMs, that included OREAS 36 (certified for Cu, and Zn), 111 (Cu and Zn), 140 (Sn, Cu and Zn), 141 (Sn, Cu and Zn) and 142 (Sn, Cu and Zn).

There were 13 data points for OREAS 36 for Cu and Zn. There were no failures for Cu and two low failures for Zn. A slight low bias for Zn was noted. P&E does not consider any of the failures to impact the database as all were -3 standard deviations below the certified mean value.

There were 19 data points for the OREAS 111 standard for Cu and Zn. All samples passed for Cu and Zn and a high bias was noted for both elements.

Sn, Cu and Zn all performed well for the OREAS 140 CRM, with no failures out of the 12 samples reviewed. A low bias was indicated for both Sn and Zn.

All 20 samples passed for the OREAS 141 CRM for Sn, Cu and Zn, and a low bias was indicated for all of these three elements.

There were 7 data points for the OREAS 142 standard for Sn, Cu and Zn. All samples passed for all three elements and a low bias was noted for Zn.

Performance of Blank Material

The same granitic blank material was used as in previous years. The blank results have also been assessed in the same manner as before.

The blank results were assessed for each element as with the previous phases, using the average grade of a total of 102 data points as a guide. The average grades are as follows:

- Sn = 46 ppm
- Cu = 55 ppm
- Zn = 123 ppm

Data for each of the elements were plotted against the corresponding average value and, once again, the majority of results fell close to the average grades given above. There were four relatively high-grade blank samples that were assessed:

- Cu sample C1215105 from batch SD118, at 830 ppm, which was located in a relatively low-grade interval and there were also nine other non-problematic blanks in this batch and no follow-up was considered necessary.
- Sn sample C1222009 from batch SD126, at 4,210 ppm, which followed a very high-grade sample and indeed showed high contamination. No follow-up was considered necessary.
- Zn samples C1304162 and C1304174 from batch SD134, at 2,980 and 2,530 ppm respectively, were positioned in relatively low-grade intervals and there were also four other non-problematic blanks in this batch. No follow-up action was considered necessary.

P&E considers all of the blank data to be within acceptable limits, with none of the results significantly impacting the resource.

Performance of Duplicates

WUM inserted field, coarse reject and pulp duplicates into the sample stream in batches SD105 through SD135. A total of 47 field, 39 coarse reject and 171 pulp duplicates were examined, together with 90 laboratory coarse duplicates and 43 laboratory pulp duplicates.

Data points were charted on scatter plots and precision for all elements appear acceptable, with precision increasing with the fining of duplicate grain size.

12.3 CHECK ASSAYS

Various check analyses were carried out at assorted secondary laboratories to evaluate the accuracy of the primary laboratories.

In May of 2012, random WAI drill hole samples were selected for comparison to check assays carried out at Activation Laboratories for Sn, Cu and Zn. A total of 142 samples were analysed, from batches SD01 to SD47, and comparison between the original WAI results and Activation Laboratory's check analyses is excellent.

In September of 2012, check assays were also carried out on a total of 204 WUM drill hole samples. Check assaying was undertaken at AGAT laboratories for Sn, Cu and Zn on samples from drill holes WUM-1200 to WUM-1212 and comparison of original and check results are also excellent.

Check analyses of randomly selected XRM laboratory samples for Sn, Cu and Zn were also undertaken at OMAC laboratory in 2012. A total of 40 samples were sent for analysis and, aside from one Sn result, that was concluded to be a sample mismatch, comparison of the original samples to the check assays was also excellent for all three previously stated elements.

12.4 DATA VERIFICATION RECOMMENDATIONS AND CONCLUSIONS

WUM implemented a comprehensive QA/QC program for the final stages of drilling at the South Crofty Project. The only recommendation made to improve the QA/QC protocol is to locate a non-mineralized blank to replace the one currently being used.

Based upon the evaluation of the QA/QC program undertaken by the Company, as well as P&E's due diligence sampling, it is P&E's opinion that the results are suitable for use in the current resource estimate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The long history of past production from the Property suggests that a viable process with acceptable recoveries can be developed.

The South Crofty mill operated until 1988 when processing was transferred to the Wheal Jane mill and continued for another 10 years until the South Crofty mine was shut down.

The South Crofty mill produced two gravity concentrates; a low grade concentrate typically assaying 26% Sn and a high grade concentrate assaying about 47% Sn from a head grade of 0.84% Sn. Tin recovery overall was reportedly about 73%.

Better performance was achieved at the Wheal Jane mill. For the year 1997, average recovery was reportedly 88.5% from a head grade of 1.40% Sn. Both gravity and flotation concentrates were produced, with a combined grade of 58% Sn. The improved performance at Wheal Jane is likely due to the incorporation of tin flotation in the process, and to the higher feed grade at the time.

It is probable that a new mill would incorporate gravity and flotation recovery of tin, generally as practiced at Wheal Jane. A portion of the current mineral resource contains potentially recoverable copper and zinc which, if economic, would require additional flotation circuits. Since the previous mill performance is based on several decades of production from several parts of the Lower mine, the processed material is considered to be representative of the mineral deposit in the Lower mine. Limited information is present on the metallurgical characteristics of the Upper mine.

No deleterious elements of significance have been observed in any of the past metallurgical testwork or production records.

14.0 RESOURCE ESTIMATE

14.1 SUMMARY

The Mineral Resources for the South Crofty Project were estimated by conventional 3D computer block modelling methods employing Dassault Systemes GEMS mining software V6.4 and V6.6 (GEMS).

The Sn, Cu, Zn, Pb, W mineralization occurs in various narrow, structurally controlled hypothermal to epithermal fissure veins or lodes hosted in killas metsedimentary rocks and Carn Brae batholith granites. Polymetallic-low grade tin mineralization is characteristic of the killas whereas the granite is tin-rich and base metals poor. Mineral Resources were estimated for 24 lodes located within an area of 3.3 km by 1 km and extending from near surface at Dolcoath to 835 m depth for the deep lodes such as at Roskear and No. 8 area. The granite-hosted deep lodes have witnessed past mining with resources having been accordingly depleted for stopes, draw points and raises but not for levels and drifts since the latter are volumetrically small. The narrow widths of the lodes and presence of town infrastructure on surface precludes open cast mining leaving the lodes being only amenable to underground mining.

For the purpose of resource estimation and reporting, the lodes have been grouped into the "Lower Mine" which includes the deep, granite-hosted lodes for which only tin analyses are available, and the "Upper Mine" in which lodes straddling or lying above the granite-killas contact, have been tested by recent drilling and have multi-element analyses available. The recent drilling and assaying has been subjected to current industry standard QA/QC work, however, the historic core drilling and assaying would have been supported by mine quality control practices in force at those times and would not have been as rigorous as required by today's CIM standards.

Indicated and Inferred Mineral Resources have been estimated for tin in the Lower Mine and tin, copper and zinc in the Upper Mine. This resource estimate is based on diamond drilling, core sampling and assaying as well as underground back and face channel sampling and chip sample assaying. Sampling during past mine operations in the Lower Mine was predominantly historic channel sampling and short hole wall drilling in drives with historic exploration drilling on strike and down dip of the workings. Recent drilling from 2008 to 2013 has tested the Upper Mine Dolcoath lodes.

The exploration drill hole database for the South Crofty Project contains 157 recent diamond drill holes totalling 30,931.82 m, 3,362 historic diamond drill holes for 90,732.81 m and 14,893 historic channels over 29,439.75 m.

Metal prices used for the resource estimate are US$8.50/lb Sn, US$2.75/lb Cu and US$0.90/lb Zn based on approximate LME two-year trailing averages at March 31, 2016. Process recovery assumptions are 88.5% for Sn, 85% for Cu and 70% for Zn. Given the polymetallic nature of the lodes, mineral wireframe modelling and resource reporting is based on tin equivalent (SnEq) grade. The SnEq calculation includes metal price and recovery: SnEq% = Sn% + (0.311 x Cu%) + (0.084 x Zn%). For the deep lodes, only tin analyses are available, therefore SnEq% is essentially Sn%.

Fifty-nine (59) mineral wireframes for twenty-four (24) lodes were constructed from mineralization intercepts in channels and drill holes at a cut-off grade of 0.5% Sn/SnEq over a

minimum true width of 1.2 m. The Lower Mine lodes were modelled mostly on level plans using varying horizontal widths depending on lode dip. Minimum length of Sn mineralization along strike on the levels for inclusion in resources was 15 m. Lode widths commonly are narrower than minimum mining width and were "bulked out" to at least minimum width using adjacent assays when available and practical or to minimum width at zero grade where only the lode was sampled. In the latter case, preference was given to bulking out on the lode footwall in keeping with past mining convention at South Crofty. Upper Mine lodes, estimated predominantly from recent drilling, were modelled on vertical cross sections.

Assay grades were capped at 6% for Sn, 4% for Cu and 20% for Zn for the Upper Mine and 20% Sn for the Lower Mine. Assay composites were generated for the vein intercepts from the assays captured by GEMS software in the mineral wireframes. Channel samples from predominantly the Lower Mine, were composited at a length is 1.2 m dynamically adjusted in order that all composites in the intercept have the same length. This method ensures that the grade weighting is correctly applied for bulked out lode widths but results in variable composite lengths. Compositing for drill holes was done down hole at 1.5 m consistent lengths with review of discarded residual fragments for bias.

Four block models and several partial models were created to encompass the various lode areas: Dolcoath, Roskear, No.4-No.8-No.2-Providence; and Pryces-Tincroft. The resource block models' X axes are rotated to 60° azimuth. Block sizes are 5m x 5m x 2m vertical. Inverse distance cubed (ID^3) interpolation was carried out using multiple search distances and search ellipses oriented to lode strikes and dips.

Historic bulk density for mining granite-hosted lodes was 2.77 t/m^3 (Owen et al. 1998). Water immersion bulk density testing was carried out on-site for 119 core samples from 2010 to 2011 drill holes. Samples were obtained from the Dolcoath lodes and averaged 3.09 t/m^3. To convert block model volumes to tonnes, P&E used a 2.77 t/m^3 bulk density for the deep, granite-hosted lodes and 3.0 t/m^3 for the killas-hosted Sn-Cu-Zn bearing lodes at Dolcoath.

Mineral Resources were classified as Indicated and Inferred based on completeness of channel sampling (levels above/below, raises), the drill hole spacing, confidence in the assaying for drilling, and geologic confidence in grade continuity. The Indicated and Inferred resources for the Lower Mine includes pillars and sills, some of which may not be recoverable pending an engineering study.

The total Indicated Mineral Resource estimated for a 0.6% Sn/SnEq block cut-off grade is 1.92 million tonnes averaging 1.70% Sn/SnEq. The total Inferred Resource for a 0.6% Sn/SnEq block cut-off grade is 1.20 million tonnes averaging 1.52% Sn/SnEq.

Validation of the grade interpolation and the block model was carried out by on-screen review of grades and other block model estimation parameters versus drill hole composites, by comparison of assay, composites, zone intercepts and block grades, comparison to alternate nearest neighbour (NN) interpolations, and review of the volumes of wireframes versus reported resources.

Although there are number of uncertainties in the historic data, appropriate due diligence has been exercised to compile and verify data from mine records and in P&E's opinion, the resource estimate has no fatal flaws, is reasonable and has been undertaken according to industry standard practice.

P&E recommends undertaking a Preliminary Economic Assessment (PEA) of the South Crofty Project.

14.2 SOURCE OF DATA

Drill hole and channel sampling databases in digital format (Access and Excel) were provided by WUM personnel Dr. Keith Russ PhD, Technical Services Engineer and Ms. Samantha Rae B.Sc., Chief Mine Geologist, during the P&E 5-day site visit (Nov 17 to 22, 2014). Two databases were provided, one with recent drilling, historic exploration diamond drill holes and some channel samples and the other largely historic channel samples with some historic drilling data. Initial importing of historic channels and historic drilling data disclosed duplication of drill holes and channels between the databases as well as duplicated data and partially duplicated data within the databases. The duplicated channel sampling data consisted of resampled the channels that included wall sampling in contrast to earlier lode sampling only. P&E retained the most appropriate data and other data were removed from the database and stored. The data were extensively cleaned up during the wireframing/modelling process and additional data was retrieved from mine records where necessary as gaps in the sampling were noted as wireframing work progressed. Once data acquisition and verification were completed, the databases were segregated into a drill hole database and a channel sample database for the purpose of domain interpretation and resource estimation.

Discussions were held with WUM personal during the 5-day site visit and on an ongoing basis during the data verification and modeling phases of the resource estimate. At a P&E request, Mr. Allan Reynolds, Technical Services Manager, of WUM extracted and compiled historic resource estimates and production data for Roskear and No. 8 lodes and carried out a reconciliation of the mine's historic resource estimates versus mining.

Publically available reports on SEDAR were accessed and reviewed as well as non-public reports at the mine and others commissioned by Tin Shield.

14.3 DATA VALIDATION

P&E uses GEMS routines to validate the drill hole database using software routines that trap errors and potential problems such as:

- Intervals exceeding the hole length (from-to problem).
- Negative or zero length intervals (from-to problem).
- Inconsistent down hole survey records or lack of zero depth entry at collar as needed by GEMS.
- Duplicate samples or out of sequence and overlapping intervals (from-to problem; additional sampling/check sampling included in table).
- No interval defined within analyzed sequences (not sampled or implicit missing samples/results).

Validation of data also includes checks for:

- Inconsistent naming conventions and analytical units.
- Transposed assay table columns.
- Implausible drill hole collar locations.
- Implausible drill hole traces on screen in 3D.
- Drill hole deviation checks by software or Excel graphs.

The drill hole data received from WUM required extensive verification and validation work to prepare for resource estimation and allow for acceptance for resource classification at a higher level than Inferred.

The recent drilling verification, after checks for laboratory batch reruns, was resolved to 53 discrepancies between laboratory certificates and the assay database. Most of these were found to be mis-entered QA/QC results.

Approximately 40,000 historic channel samples were digitized from mine plans by WUM using contract personnel over a period of 18 months. During import of CSV files to GEMS and subsequent wireframing work, P&E found inconsistencies such as coordinate errors, excessive lengths, duplicates (resampling), near duplicates (geology grid versus mine grid), and implausible orientations with respect to drift walls. WUM was apprised of these issues and checks against original records were performed. The channels were also subjected to GEMS validation routines.

P&E used proprietary software to examine the down hole surveys for excessive deviation readings that would bear confirming or removal. Much of the historic drilling in the Lower Mine has limited to no down hole surveys since many holes are short bazooka holes into drift walls. Historic exploration holes testing lower mined lodes are primarily on the fringes of the deposits where Inferred Resources are outlined. Results of the deviation examination are in point form as follows (refer to Table 14.1):

<u>All Holes: Down Hole Survey Verification</u>

- Number of holes in survey file: 3,515
- Number of records: 7,981
- Total length drilled: 121,591.73 m
- Number of unsurveyed holes: 3,270
- Total length of unsurveyed holes: 90,410.19 m
- Percent of unsurveyed holes: 93.03%
- Percent by length of unsurveyed holes: 74.36%

<u>Down Hole Deviation Analysis for Recent Drilling</u>

- Threshold deviation: 10°/ 30 m
- Number of excessive azimuth deviations/m: 44
- Number of excessive dip deviations/m: 2
- Number of holes with no azimuth change: 1
- Number of holes with no dip change: 113

TABLE 14.1 DRILL HOLE DEVIATION ANALYSIS		
Hole ID	**Distance(m)**	**Az/Dip**
DD0921	42	Az
DD0923	15	Az
DD0923	21	Az
DD0925	12	Az
DD0925	18	Az
DD0925	162	Az
DD0931	11	Az
DD1004	163	Az
DD1004	163	Dip
DD1005	137	Az
DD1008	12	Az
DD1014	13	Az
DD1014	19	Az
DD1015	12	Az
DD1015	18	Az
DD1020	8	Az
DD1021	251	Az
DD1021	257	Az
DD1024	14	Az
DD1025	14	Az
DD1025	56	Az
DD1025	62	Az
DD1026	89	Az
DD1026	95	Az
DD1031	87	Az
DD1031	99	Az
DD1103	265	Az
DD1125	13	Az
DD1125	19	Az
DD1130	108	Az
DD1138	32	Az
DD1139	158	Az
DD1212	6	Dip First reading
DD1213	72	Az
DD1213	78	Az
DD1227	25	Az
DD1227	31	Az
DD1304	214	Az
DD1304	242	Az
DD1305	141	Az
DD1305	153	Az
DD1305	300	Az
DD1305	306	Az
DD1305	352	Az
DD1305	355	Az
DD1305	391	Az
Total holes 25		

The deviation of 10° per 30 m for the deviation test above is a high threshold for the PQ to BQTW sized drill rods used in the recent drilling. Readings for azimuth appear to have been a problem for the Reflex Instruments EZ-TRAC equipment, possibly at the reconciliation with the local magnetic field or with magnetic sources down hole.

Holes with excessive deviation were checked against available survey records. Implausible readings were discarded where practicable.

14.4 SOUTH CROFTY SAMPLING DATABASE

The digital drill hole and channel databases contain data for surface and underground diamond drill holes and channel samples. The data were acquired from 1917 to 2013. P&E divided drill hole data and channel data into two databases. The drill hole database contains 3,519 holes totalling 123,130.90 m of which the recent drilling from 2008 to 2013 comprises 157 holes for 30,931.82 m. The historic channel database contains 14,893 channels over 29,439.35 m.

The drilling and channel sampling spans 4.08 km along the 60° strike of the mineralized lodes and extends to a depth up to 877 m. Other than bazooka wall drilling, drill holes are fanned or irregularly spaced with variable hole density. The databases are summarized in Table 14.2.

TABLE 14.2
SUMMARY OF DIAMOND DRILL HOLES AND CHANNELS DATABASES

	Count	Length (m)	Minimum (m)	Maximum (m)	Average (m)
Drill holes	3,519	123,664.20	0.50	450.65	35.14
Channels	14,893	29,439.75	0.02	10.96	1.98
Drill Holes in Resource Estimate	1,036	38,252.28	2.04	437.32	36.92
Channels in Resource Estimate	13,536	12,056.41	0.02	7.92	0.89

A plan of drill hole locations for the South Crofty Project area is shown in Figure 14.1 and a 3D perspective view is shown in Figure 14.2.

14.4.1 Drill Hole Collar Surveys

Collars for the recent drill holes in the decline and spine drive were located by WUM surveyors using conventional underground survey methods.

14.4.2 Down Hole Surveys

Down hole surveys for recent drilling were carried out by WUM personnel using Reflex EZ-Trac tooling which is equipped with a built-in compass that is not suitable for in-casing readings and is affected by magnetic rocks. The Reflex EZ-Trac is an electronic device providing digital processing and read-out by EZ-COM software and can be operated in single or multi-shot mode. The probe length is 1.03 m. The accuracy of the Reflex instrument is ±0.25° for inclination measurements and ±0.35° for azimuth measurements.

Surveying with the Reflex EZ-Trac began with hole DD0918 but included holes DD0908 and DD0909 which were redrilled in 2012. Recent holes DD0901 to DD0909, DD0912 and DD0917 were not surveyed down hole. Readings were taken in multi-shot mode from the hole toe to surface at nominal 6 m intervals. The azimuths were corrected for magnetic declination and drift, and subsequently the corrected data were entered into the digital drill hole database.

14.4.3 Channel Sample Surveys

WUM has compiled channel sampling digital data from mine hardcopy sample logs. Channels were entered in the database as pseudo drill holes. The records for later or check channels with multiple assays contain coordinates that locate the samples with reasonable accuracy within the levels. The coordinates have been located digitally by cursor on scanned mine plans with elevation of these channels taken as 1.5 m above the drive floor. Channels lacking survey plans or those that were incompletely sampled wall to wall, the starting points have been taken from the log's distances from survey plugs or identifiable workings features, such as crosscuts, and the origin was set at the drive south wall. Although face samples are included in the database, the majority were back channels. As such there is a minor spatial displacement of the channels with respect to their actual locations. However, this small error is well within overall resource estimation variability.

Figure 14.1 Drill Hole and Channel Sample Location Plan and Surface Projection of the South Crofty Lode Wireframes (Non-Depleted)

Legend: ------ Channels |-----o Drill Hole (Workings not shown)

Figure 14.2 3D Isometric View of Drill holes, Channel Sampling and Lode Wireframes (Non-Depleted) (Looking NNE)

Legend: ------ Channels |-----o Drill Hole (Workings not shown)

14.4.4 Assay/Analytical Database

The drill hole assay database contains 28,030 samples covering 38,386.42 m of coring, whereas the channel assay database contains 35,556 samples covering 29,144.82 m of chip sampling. Tables 14.3 and 14.4 summarize basic statistics for the channel sample and drill core databases and the various resource areas in the lodes that P&E modelled for resources.

Historic back channels in the Lower Mine were taken at 3.0 m intervals and locally at 1.0 m. Chip samples in the channels were cut generally at minimum of 0.3 m (1 ft) and up to ±7.0 m with the bulk of the samples taken over 0.6 m (2 ft). Sample widths for channels and bazooka wall drilling are irregular and where the lode walls (waste) are sampled, lengths tend to be substantially longer than for the lodes making dilution to minimum mining width using hanging wall and footwall assays problematic.

Tin content in a portion of the channel samples was determined by "vanning assay". Such assays are from channels with only one sample, which account for up to 30% of the channel samples used in the resource estimate or up to 52% by length. Vanning is a washing/panning type method

that was most widely used to determine the tin content of Cornish ores and mill products. It involved washing and separating a weighed portion of the material to be tested on a specially shaped "vanning" shovel. Here the heavy cassiterite was collected whilst the lighter waste washed away. Repeated washing and subsequent roasting of the cassiterite concentrate to remove arsenic produced a clean concentrate of "black tin". After removing any iron minerals present with a magnet, the concentrate was weighed and the amount of cassiterite in the original sample calculated and reported as lbs of black tin per long ton. Because the vanning assay emulated the milling processes it was particularly useful to determine recoverable tin, and in the hands of a skilled operator was quick and relatively accurate to tin contents as low as 0.1% Sn. The vanning method continued to be used underground until the end of 20th century even though reliable wet chemical methods were in use at mine laboratories from the late 19th century. At South Crofty, vanning assays have been converted to total Sn% by a formula developed at the mines that is based on a comparison of vanning results to wet chemical or XRF analytical results. Sn% = vanning assay (lbs/long ton) x 1.1/22.4 (or 0.049) where 22.4 is the conversion from long tons to percent and 1.1 is the factor converting recoverable tin to total tin content.

P&E examined 65 original vanning sampling records where black tin lbs/long ton had been converted to recoverable Sn%. Only one error was found, however, since the original vanning results would have been converted to total Sn%, the error is immaterial in terms of the channel sampling database.

There are 26 of the 157 recent drill holes and 504 historic holes that have no assays. Where assays were not available for the drill holes, there was uncertainty in location or that assays were questionable vis a vie surrounding sampling, the respective holes were eliminated for the purpose of resource estimation. Similarly, for channel samples, where assays were lacking or location or orientation was suspect, these were discarded or not wireframed.

TABLE 14.3
SUMMARY STATISTICS FOR THE CHANNEL ASSAYS DATABASE

Domain	Name	Count	Length (m)	Minimum	Maximum	Average Sn%	Weighted Sn%	Std. Dev.	Coef. Var.
0	Waste	21,838	16,962.54	0.0000	48.96	0.28	0.23	1.23	4.31
1	Pryces	914	673.34	0.0001	43.60	2.47	2.17	4.65	1.88
2	Pryces	95	58.60	0.0010	57.00	2.33	2.57	6.46	2.77
3	Pryces	156	128.15	0.0010	9.00	0.66	0.84	1.18	1.78
4	Pryces	389	275.57	0.0000	36.73	1.77	1.67	3.29	1.86
5	Pryces	60	93.65	0.2900	4.03	1.04	1.07	0.70	0.67
6	Pryces	49	93.41	0.0001	8.30	1.19	0.99	1.54	1.30
7	Pryces	20	12.50	0.0010	41.01	3.28	2.88	8.85	2.70
8	Pryces	46	29.60	0.0010	9.25	1.68	1.68	2.39	1.43
9	Pryces	39	23.10	0.0010	9.05	1.81	1.77	2.28	1.26
10	Pryces	38	21.70	0.0010	18.00	1.42	1.16	2.99	2.12
11	Pryces	31	20.85	0.0010	7.40	0.73	0.79	1.40	1.91
12	Pryces	7	5.80	0.2200	3.95	1.44	1.54	1.11	0.77
13	Pryces	12	7.28	0.2200	5.70	2.00	2.01	1.54	0.77
14	Pryces	4	2.20	0.1200	10.20	2.98	2.74	4.18	1.40
15	Pryces	14	7.90	0.6000	8.80	2.95	3.03	2.49	0.84
17	Pryces	16	8.40	0.1000	2.40	0.73	0.78	0.67	0.92
18	Pryces	13	8.30	0.0010	16.55	2.52	2.82	4.27	1.69
19	Pryces	22	11.80	0.1000	9.57	1.09	0.73	1.99	1.83
20	Pryces	21	13.90	0.0010	20.95	3.54	3.95	5.58	1.58
30	Tincroft	17	11.34	0.0001	7.66	1.53	1.26	2.12	1.38
31	Tincroft	87	59.80	0.0010	18.61	1.32	1.35	2.64	2.00
32	Tincroft	478	425.63	0.0001	25.24	2.20	2.03	3.81	1.73
33	Tincroft	72	68.39	0.0001	13.06	2.21	2.33	2.59	1.17

TABLE 14.3 SUMMARY STATISTICS FOR THE CHANNEL ASSAYS DATABASE									
Domain	**Name**	**Count**	**Length (m)**	**Minimum**	**Maximum**	**Average Sn%**	**Weighted Sn%**	**Std. Dev.**	**Coef. Var.**
34	Tincroft	29	52.29	0.0982	3.63	0.96	0.93	1.04	1.08
35	Tincroft	36	21.00	0.0100	5.63	1.14	1.15	1.40	1.22
36	Tincroft	25	19.50	0.0210	10.92	2.36	2.39	2.91	1.23
37	Tincroft	22	17.73	0.0000	2.95	0.71	0.69	0.89	1.25
38	Tincroft	30	22.51	0.0000	6.77	2.10	2.05	1.86	0.88
39	Tincroft	16	6.24	0.0491	13.85	2.85	2.30	3.47	1.22
40	RoskearA	396	382.86	0.0000	18.24	2.53	2.34	2.87	1.13
41	RoskearB	813	1,025.17	0.0000	18.93	2.16	1.80	2.85	1.32
42	RoskearBHW	234	206.65	0.0000	19.68	2.05	1.80	2.46	1.20
51	Providence	65	47.85	0.0000	13.80	2.43	2.31	3.43	1.41
52	Providence	30	22.10	0.0000	10.39	1.05	1.04	1.91	1.81
53	Providence	25	15.40	0.0000	36.39	4.57	4.36	8.34	1.82
54	Providence	4	6.90	2.9800	13.20	7.35	6.76	3.70	0.50
60	North FW	114	72.30	0.0000	9.19	1.18	1.13	1.84	1.57
61	South Branch	183	107.35	0.0000	36.74	1.82	1.51	3.75	2.06
62	Middle	184	94.71	0.0000	9.24	0.85	0.75	1.68	1.96
63	North	1,358	827.07	0.0000	52.00	1.39	1.35	3.02	2.18
65	South	2,155	1,252.13	0.0000	35.00	1.63	1.63	2.80	1.71
81	No. 8-1	884	694.52	0.0000	33.34	2.55	2.46	3.83	1.50
82	No. 8-2	108	60.99	0.0001	47.44	2.34	2.29	5.00	2.13
100	No. 4	2,512	2,995.97	0.0000	48.11	2.29	2.08	3.38	1.47
201	No. 2-1	1,138	1,534.22	0.0001	33.52	1.99	1.64	2.94	1.47
202	No. 2-2	44	45.80	0.4420	3.73	1.29	1.30	0.64	0.50
203	No. 2-NCK	531	463.95	0.0001	28.50	2.20	2.09	3.63	1.64
	Totals	**35,374**	**29,018.96**						

TABLE 14.4 SUMMARY STATISTICS FOR THE DRILL CORE ASSAYS DATABASE									
Domain	**Name**	**Count**	**Length (m)**	**Min Sn%**	**Max Sn%**	**Average Grade Sn%**	**Weighted Grade Sn%**	**Std. Dev.**	**Coef. Var.**
0	Waste	23,231	17,346.76	0.0000	41.10	0.61	0.43	1.87	3.09
1	Pryces	298	228.12	0.0000	16.29	1.87	1.92	2.73	1.46
2	Pryces	149	104.69	0.0000	25.88	1.39	1.52	2.83	2.04
3	Pryces	2	2.85	0.1900	2.15	1.17	1.08	0.98	0.84
4	Pryces	40	23.57	0.0000	28.14	2.24	1.81	4.97	2.22
5	Pryces	6	6.70	0.1600	3.04	1.66	1.49	0.86	0.52
6	Pryces	10	5.50	0.0400	2.50	0.99	0.99	0.72	0.72
7	Pryces	47	31.26	0.0100	6.03	1.43	1.39	1.26	0.88
9	Pryces	1	2.45	0.1000	0.10	0.10	0.10	0.00	0.00
14	Pryces	17	13.60	0.0300	21.65	3.45	2.38	5.49	1.59
15	Pryces	2	2.10	0.6700	1.75	1.21	1.13	0.54	0.45
16	Pryces	70	53.29	0.0300	16.97	3.13	2.99	3.31	1.06
17	Pryces	1	0.74	0.6200	0.62	0.62	0.62	0.00	0.00
19	Pryces	1	0.50	0.0100	0.01	0.01	0.01	0.00	0.00
20	Pryces	2	1.00	0.0100	0.16	0.09	0.09	0.08	0.88
21	Pryces	88	79.80	0.0100	20.37	2.13	1.89	3.96	1.86
32	Tincroft	1	1.75	2.5600	2.56	2.56	2.56	0.00	0.00
39	Tincroft	1	0.61	4.2200	4.22	4.22	4.22	0.00	0.00
40	RoskearA	59	53.79	0.1300	26.78	2.83	2.52	4.65	1.65
41	RoskearB	704	520.58	0.0000	32.00	2.40	2.11	3.55	1.48
42	RoskearBHW	178	122.22	0.0000	20.75	2.50	2.19	3.75	1.50
54	Providence	3	1.50	0.1600	6.12	2.52	2.62	2.59	1.03
55	Providence	14	7.95	0.1200	7.98	2.04	2.06	2.37	1.16
60	North FW	17	8.85	0.0100	4.00	1.11	1.07	1.22	1.10
61	South Branch	3	1.77	0.6500	6.39	2.91	2.82	2.50	0.86

TABLE 14.4 SUMMARY STATISTICS FOR THE DRILL CORE ASSAYS DATABASE									
Domain	**Name**	**Count**	**Length (m)**	**Min Sn%**	**Max Sn%**	**Average Grade Sn%**	**Weighted Grade Sn%**	**Std. Dev.**	**Coef. Var.**
62	Middle	86	77.54	0.0010	6.45	0.56	0.51	0.99	1.78
63	North	130	81.45	0.0000	12.73	1.57	1.66	2.05	1.30
64	North HW	16	7.30	0.0500	9.28	1.71	1.44	2.24	1.31
65	South	13	9.83	0.0500	6.24	1.54	1.32	1.84	1.20
66	Upper SSB	39	34.34	0.0100	2.11	0.41	0.35	0.46	1.14
70	Upper Main	124	94.24	0.0000	3.48	0.41	0.43	0.59	1.45
71	S. Entral	129	94.28	0.0010	6.20	0.52	0.54	0.84	1.62
72	NVC	52	45.02	0.0000	5.27	0.55	0.39	1.09	1.98
73	Middle Branch	37	30.12	0.0100	3.99	0.67	0.57	0.96	1.43
74	Little NE	57	36.88	0.0000	14.00	1.06	1.22	2.59	2.45
75	Little NW	41	34.74	0.0200	2.37	0.28	0.31	0.48	1.70
76	Little NW FW	10	9.69	0.0100	6.61	1.05	0.91	2.04	1.95
81	No. 8-1	614	423.46	0.0000	47.00	1.86	1.71	3.43	1.85
82	No. 8-2	2	5.90	0.5700	1.64	1.11	1.23	0.54	0.48
100	No. 4	351	311.16	0.0100	37.50	3.17	2.62	5.21	1.64
201	No.2-1	12	5.65	0.0500	5.36	2.01	1.91	1.82	0.91
202	No.2-2	6	1.88	0.1000	4.67	1.02	1.02	1.64	1.62
203	No.2-NCK	2	1.09	0.69	8.30	4.50	1.88	3.81	0.85
	Totals	**26,666**	**19,926.92**						

WUM submitted the recent drill core samples for multi-element ICP analysis including Sn, Cu, Pb and Zn at the AGAT, SGS and WAI (Wardell Armstrong) laboratories in Cornwall for sample preparation from 2008 to 2013, with AGAT and SGS chemical analyses being performed in Canada. Analyses for historic drill core and channel chip samples were performed at various laboratories including the Wheal Jane mine laboratory and the South Crofty mine laboratory. Limited umpire assaying at outside laboratories was also undertaken.

P&E carried out assay data verification for the recent drilling in March-April 2015. The assay certificates in spreadsheet format were obtained directly from AGAT, SGS and WAI laboratories. A total of 5,597 records for tin, copper, zinc and lead assays contained in the mineral resource wireframes were extracted for verification against laboratory assay records. Approximately 1,798 assays were located and checked. A number of discrepancies were noted and the database was corrected and updated.

In addition to the data verification reported above, P&E reviewed the QA/QC for the South Crofty Project analyses from the recent drilling and concludes that the analyses are acceptable for resource estimation.

P&E's site visit confirmed that core recovery was generally good, the lodes were reasonably competent and recovery was over 90% for core examined.

In P&E's opinion the drill hole and assay/analytical databases was suitable for the estimation of Mineral Resources and Mineral Reserves.

14.5 CUT-OFF GRADES AND WIREFRAMES

P&E examined metal prices, preliminary operating costs and metal recoveries with respect to the 0.6% Sn / SnEq resource cut-off grade and wireframe cut-off grade (Table 14.5). Mining costs assume longhole mining.

TABLE 14.5 RESOURCE ESTIMATE CUT-OFF GRADE PARAMETERS	
Metal Price: Sn US$/lb	8.50
Concentrate Recovery Sn	85.5%
Smelter Payable Sn	95%
Mining Cost US$/t	55
Process Cost US$/t	27
G&A Cost US$/t	9
Smelting, Refining, Freight Cost US$/t	600
Total Operating Cost US$/t	91
Mine Cut-off Sn/SnEq%	**0.6%**

The breakeven cut-off grade is in the order of 0.6% Sn / SnEq. Wireframing by others in the past has employed 0.2% Sn to 0.3% Sn to preserve grade continuity. P&E extracted assays for wireframes used in past resource estimates for Lower Mine lodes and examined tin grade distributions. P&E concluded that a slightly lower 0.5% Sn / SnEq cut-off was appropriate for wireframing and that its use would reduce dilution expected from the use of 0.2% Sn to 0.3% Sn cut-offs and optimize the grade of resources thus offering higher potential for economic mining.

Fifty-nine (59) mineral wireframes for twenty-four (24) lodes were constructed from mineralization intercepts in channels and drill holes at a cut-off grade of 0.5% Sn / SnEq over a minimum true width of 1.2 m. Wireframes were constructed by conventional polylining and snapping to assay limits in 3D space. Wireframing was carried out by P&E geologists Richard Routledge, M.Sc. (Applied), P.Geo., Antoine Yassa, P.Geo., and Yungang Wu, M.Sc., P.Geo., all qualified persons under CIM definitions.

Upper Mine interpretation and wireframing, primarily from recent drill holes, was done on vertical cross sections.

The Lower Mine lodes that are dominated by horizontal channel and bazooka drilling were modelled mostly on level plans generated at the elevations of the workings. Minimum horizontal widths varied depending on lode dip. Interpretation of zones within the lodes was made on inclined longitudinal sections. Minimum length of Sn mineralization along strike on the levels for inclusion in resources was 15 m. Wireframes were projected up to 25 m beyond the limits of sampling for drill holes and channel samples on the periphery of the lodes or half the distance between levels in the plane of the lode for areas of channel sampling.

Lode widths commonly are narrower than minimum mining width and were “bulked out” to at least minimum width using adjacent assays when available and practical or to minimum width at zero grade where only the lode was sampled. In the latter case, preference was given to bulking out on the lode footwall in keeping with past mining convention at South Crofty. Judgment was exercised in the interpretation of the lodes continuity and incorporation of waste with respect to mineability to avoid unrealistic “kinks” in the lode outlines.

Isometric views in Figures 14.3 and 14.4 show the relative locations of the Lower Mine and Upper Mine lodes respectively. Tables 14.6 and 14.7 provide keys to the Figures.

Figure 14.3 Isometric View and Relative Locations of Lower Mine Depleted Lodes (Looking NNE and down)

TABLE 14.6 LOWER MINE LODES	
Figure 14.3 Key	**Lode Name (Wireframes)**
1	Dolcoath North
2	Dolcoath North Hanging Wall
3	Dolcoath North Footwall
4	Dolcoath South
5	Dolcoath South Branch
6	No. 2 (2)
7	No. 2-NCK
8	No. 4
9	No. 8 (2)
10	Providence (5)
11	Pryces (21)
12	Roskear A
13	Roskear B
14	Roskear B Hanging Wall
15	Tincroft (10)

Figure 14.4 Isometric View and Relative Locations of Upper Mine Lodes (Looking NNE)

TABLE 14.7 UPPER MINE LODES	
Figure 14.4 Key	**Lode Name**
1	Dolcoath Little North East
2	Dolcoath South Entral
3	Dolcoath North Valley Caunter (NVC)
4	Dolcoath Upper South-South Branch
5	Dolcoath Main
6	Dolcoath Little North West
7	Dolcoath Little Northwest Footwall
8	Dolcoath Middle
9	Dolcoath Middle Branch

14.6 ASSAY GRADE DISTRIBUTIONS AND GRADE CAPPING

P&E examined basic statistics for Lower Mine Sn assays and Upper Mine Sn, Cu and Zn assays. Grade distribution for the Sn assays are positively skewed and somewhat bimoldal (Figures 14.5 and 14.6). P&E's review of the spatial distribution of higher grades disclosed no significant clustering that would warrant modeling discrete high-grade zones. Accordingly, P&E elected to

cap high assays within the wireframes in order to limit the influence of high outlier assays. P&E examined lognormal probability cumulative frequency plots of the assays and the capping value was based on the cumulative probability of approximately 97.5% to 99.5% (Figures 14.7 to 14.11). Grade capping was carried out on individual resource assays Table 14.8).

TABLE 14.8
GRADE CAPPING STATISTICS

	Count	Max. Value	Raw Average	Raw CV	Cap	No. Values Capped	% Capped	Capped Average	Capped CV
UM Sn%	466	10.56	0.55	1.92	6	4	0.7%	0.53	0.89
UM Cu%	459	11.17	0.77	1.78	4	12	2.5%	0.69	1.41
UM Zn%	459	32.40	0.97	3.24	20	4	0.8%	0.92	2.97
LM Sn%	16,551	57.00	2.01	1.69	20	83	0.5%	1.97	1.55

Figure 14.5 Histograms of Sn Assays in Upper Mine Resource Wireframes

Figure 14.6 Histograms of Sn Assays in Lower Mine Resource Wireframes

Figure 14.7 Log-Probability Plot for All Sn Assays in Lower MineWireframes

Figure 14.8 Log-Probability Plot for All Sn Assays in Upper Mine Wireframes

Figure 14.9 Log-Probability Plot for All Cu Assays in Upper Mine Wireframes

Figure 14.10 Log-Probability Plot for All Zn Assays in Upper Mine Wireframes

Figure 14.11 Capping Lower Mine Wireframe Sn Assays

14.7 ASSAY COMPOSITING

Assay composites were generated for the lode intercepts from the assays captured by GEMS software inside the mineralized wireframes. Channel samples located predominantly in the Lower Mine had composite length of 1.2 m dynamically adjusted in order that all composites in the intercept have the same length. This method ensured that the grade weighting is correctly applied for bulked out lode widths but results in variable composite lengths.

Compositing for drill holes was done down hole at 1.5 m consistent lengths. After a review for any grade bias, fragments of composites (tails) with lengths less than 0.3 m were discarded as representing mostly artifacts of wireframe intersection by GEMS.

14.8 BULK DENSITY

Historic bulk density for mining granite-hosted lodes was 2.77 t/m^3 (Owen et al. 1998). Water immersion bulk density testing was carried out on-site for 119 core samples. Two displacement methods for the determination of average rock bulk density and apparent relative bulk density were used with the average of the two recorded as input to estimations (Hogg, 2012). 24 NQ half core samples were taken from 2010 and 2011 drill holes and the balance of 95 core samples were taken from 2011-2012 holes. A varied number of samples were obtained from the Dolcoath South-South Branch, Dolcoath Flat, Dolcoath Middle, Dolcoath Main, Dolcoath South and Dolcoath South Entral lodes. Bulk density results ranged from 2.60 t/m^3 to 4.57 t/m^3 and averaged 3.09 t/m^3 indicating a higher bulk density for the killas hosted mineralization at Dolcoath. To convert block model volumes to tonnes, P&E used a 2.77 t/m^3 bulk density for the

deep, granite-hosted lodes and 3.0 t/m^3 for the killas-hosted Sn-Cu-Zn bearing lodes at Dolcoath. The granite-killas contact was modelled from recent drilling and used to build the bulk density block model.

14.9 VARIOGRAPHY AND GRADE INTERPOLATION SEARCH STRATEGY

P&E prepared variance normalized semi-variograms for assay composites prepared from assays within the resource wireframes. Linear down hole variography shows a low nugget effect for Sn, Cu and Zn and supports the use of ID3 interpolation.

3D variography to guide search ellipse strategy utilized omni and tighter vector variograms for all or selected lodes with sufficient samples to support semi-variograms. In the Upper Mine, 3D copper variography indicated strike (X) ranges of 27 m to 43 m and dip (Y) ranges of 7 m to 41 m. Zinc variograms indicated strike ranges of 9 m to 48 m but dip variograms were not robust. Tin variography indicated strike ranges of 4 m to 26 m and dip ranges of 7 m to 55 m. Examination of the drill intercept spacings in the Upper Mine lodes indicated that these ranges were exceeded in a number of lodes and in order to capture samples, the initial search ellipse had to be expanded to X= 55 m and Y= 65 m.

Variography for the Lower Mine was based on the No. 4 and Roskear A lodes channel/bazooka composites and was robust for strike with ranges of 5 m to 21 m and dips at 8 m to 38 m. A steep plunge to the SW was noted from the wireframe trends on inclined plane and the search ellipse axis on dip was rotated 12° off vertical to match this trend. This latter rotation was not applied to lodes without evidence of plunge. The initial search ellipse axes for the Lower Mine were standardized at X=21 m and Y =38 m. The Y distance ensured the capture of channel samples from up to three levels.

Whilst generalized interpolation search distances were applied to all lodes in each of the Upper or Lower Mines, the orientation of the searches were matched to that of each lode.

14.10 BLOCK MODEL

Four block models were created to encompass the various lode areas: Dolcoath, Roskear, No.4-No.8-No.2-Providence; and Pryces-Tincroft. Partial block models or folders were created for Dolcoath, Roskear and Pryces-Tincroft block models because lode wireframes all have unique rock codes and the proximity of some of the lode wireframes results in a sharing of common blocks. The resource block models' X axes are rotated to 60° azimuth (30° in GEMS convention). Block sizes are 5 m x 15 m x 5 m vertical. Block model origins were set in order that block centroids maintain a continuum in coordinates from block model to block model which will facilitate merging the models in the future.

The origins of the block models are listed in Table 14.9 and the plan view of the block model areas is shown in Figure 14.12.

TABLE 14.9 BLOCK MODEL ORIGINS				
	Dolcoath Model	**Roskear Model**	**No.2-No.4-No.8-Providence**	**Pryces-Tincroft**
X (Column)	165,225	165,440.907	166,162.795	166,308.295
Y (Row)	39,744	40,700.038	40,839.692	40,587.679
Z (Level)	2,100	1,525	1,800	1,800
X No. Blocks	272	139	250	425
Y No. Blocks	440	220	394	174
Z No. Blocks	170	52	120	94

Figure 14.12 Plan View of Block Models

14.11 BLOCK MODEL GRADE INTERPOLATION

14.11.1 Depletion Models

Portions of the mineral wireframes developed by P&E at a 0.5% Sn / SnEq cut-off grade in the Lower Mine have been depleted by previous mining operations and were removed from the resource block model. WUM provided 2D surfaces of the mined out stopes and raises for each mined lode. The workings were digitized from mine records in SURPAC. P&E used, adapted, or redigitized the WUM surfaces where necessary for validation in GEMS. The lode wireframes were clipped to produce post mining wireframes for the resource estimate. The clipped wireframes were used for interpolation, volumetrics and reporting. An example of pre- and post depletion wireframes is presented in Figure14.13.

Figure 14.13 Pre- and Post Depletion Wireframes at 0.5% Sn Cut-Off

14.11.2 Search Strategy and Grade Interpolation

The composites intended for grade interpolation were extracted from the non-depleted (clipped) wireframes coded for the interpolation profiles in GEMS. Inverse distance grade interpolation was carried out using multiple expanding search distances in search ellipses oriented to lode strikes and dips. The Lower Mine was interpolated for Sn, whereas the Upper Mine was interpolated for Sn, Cu and Zn. The interpolation ellipse orientations were set in GEMS format ZXZ which is with respect to the block model axes and facilitated optimizing the search orientations for the 59 wireframes. ID^3 was utilized for all wireframes except for the Upper Mine Dolcoath lodes Middle Branch, Little North East and South Entral where ID^4 was used to control over-smoothing because of the irregular or tight drill intercept spacing.

Table 14.10 illustrates the search and grade interpolation strategy.

TABLE 14.10
GRADE INTERPOLATION SEARCH CRITERIA

Search Axis	Pass 1	Pass 2	Pass 3
Upper Mine			
X (m)	55	110	156
Y (m)	65	130	195
Z (m)	10	20	30
Lower Mine			
X (m)	20	40	100
Y (m)	75	140	200
Z (m)	10	20	30

For interpolation Passes 1 and 2, the minimum/maximum number of composites used for interpolation were 2/12 whereas 1/12 was used for Pass 3 which was designed to populate grades in all remaining blocks in the wireframes.

Interpolated grades were saved in their respective grade attribute models together with estimation criteria such as number of composites and holes used for the estimate, minimum distance from the composites to the block centroid, and interpolation pass number.

SnEq% in the block model is converted from interpolated block Sn, Cu and Zn grades where SnEq% = Sn% + (Cu% x 0.311) + (Zn% x 0.084) as discussed previously. The partial block models were merged by weighting based on block percentages and bulk density into standard block models for resource reporting by Sn/SnEq% cut-off.

14.12 MINERAL RESOURCE CLASSIFICATION

In P&E's opinion, the level of recent sampling, assaying and exploration work completed and historic mining, exploration and sampling to 1998 is sufficient to indicate that the South Crofty Project Sn, Cu, Zn deposits have the size and grades to indicate reasonable potential for economic extraction and thus qualify the estimated resources as Mineral Resources under CIM definition standards.

- International regulator's codes including the Canadian National Instrument 43-101/CIM (Canada) and the JORC (Australia) require that the following aspects be considered when developing a classification scheme:
- Continuity of geological features (lithology, structure, alteration, etc)
- Continuity of the mineralization and grades
- Variogram models and their related ranges
- Statistics of the grade population
- Tonnage factor
- Distance between sample points (drilling density)
- Sampling and data quantity and quality/and integrity (QA/QC)
- Economic, legal, environmental and technical perspectives of extraction:
- Type and scale of an appropriate mining operation
- Recovery and other metallurgical considerations
- Cut-off grade analysis
- Mining rights and permitting.

Mineral Resources were classified as Indicated and Inferred based on completeness of channel sampling (levels above/below, raises), the drill hole spacing, confidence in the assaying for drilling, and geologic confidence in grade continuity. The Indicated and Inferred resources for the Lower Mine includes pillars and sills, some of which may not be recoverable pending a future engineering study.

The resources were categorized as follows:

<u>Lower Mine</u>

- **Indicated Resources:** Resource blocks which lie in the underground developed areas supported by channel sampling and wall drilling on two levels and within 25 m of the levels.
- **Inferred Resources:** Resource blocks which lie in the underground developed areas supported by channel sampling and wall drilling on one level and within 25 m of the level. Resource blocks interpolated primarily from exploration drill holes

which for the most part are widely or irregularly spaced and for which down hole surveys are generally lacking.

Upper Mine

- **Indicated Resources:** Resources based on a regular drill hole spacing of 30 m to 40 m.
- **Inferred Resources:** Resources drilled at wider spacing than Indicated and intersected by a least three holes.

The distribution of Indicated and Inferred resource blocks is illustrated for No. 4 lode in Figure 14.14.

Figure 14.14 Distribution of Indicated and Inferred Resources for No. 4 Lode

Colour Key: Indicated Resource (green) Inferred Resource (blue)

14.13 MINERAL RESOURCE REPORTING

Table 14.11 summarizes the South Crofty Project Indicated and Inferred Resources at a cut-off grade of 0.6% Sn / SnEq.

The total Indicated Mineral Resource for a 0.6% Sn/SnEq block cut-off grade is 1.92 million tonnes averaging 1.70% Sn/SnEq. The total Inferred Resource for a 0.6% Sn/SnEq block cut-off grade is 1.20 million tonnes averaging 1.52% Sn/SnEq.

TABLE 14.11 SOUTH CROFTY RESOURCE ESTIMATE AT 0.6% SN/SNEQ CUT-OFF(1-12)				
Lode/Mine	Indicated		Inferred	
	Tonnes (k)	Sn/SnEq %	Tonnes (k)	Sn/SnEq %
Lower Mine Lodes Sn%				
No. 4	452	2.04	225	2.19
No. 2	180	1.63	13	1.12
No. 8	127	1.72	34	2.33
No.2-NCK	53	2.18	-	-
Providence	-	-	28	2.37
Roskear A	28	2.15	50	2.15
Roskear B	90	1.93	70	1.85
Roskear BHW	24	1.77	-	-
Pryces/Tincroft	298	1.67	74	2.24
Dolcoath South	226	1.67	108	1.50
Dolcoath South Branch	38	1.56	5	2.07
Dolcoath North	144	1.55	47	1.57
Dolcoath North HW	-	-	14	0.88
Dolcoath North FW	-	-	70	1.36
Subtotal Lower Mine	**1,660**	**1.81**	**738**	**1.91**
Upper Mine Lodes SnEq%				
Dolcoath Middle	89	1.01	22	0.77
Dolcoath Middle Branch (ID4)	36	1.00	-	-
Dolcoath Upper Main	-	-	274	0.81
Dolcoath Upper South South Branch	-	-	86	.86
Dolcoath NVC	-	-	35	1.11
Dolcoath Little NW	11	0.82	-	-
Dolcoath Little NW FW	-	-	1	0.86
Dolcoath Little NE (ID4)	-	-	46	1.44
Dolcoath S. Entral (ID4)	121	0.98	-	-
Subtotal Lower and Upper Mine	**257**	**0.99**	**464**	**0.91**
Grand Total Lower and Upper Mine	**1,917**	**1.70**	**1,202**	**1.52**

(1) CIM definitions were followed for Mineral Resources.

(2) The Qualified Persons for this Mineral Resource estimate are: Richard Routledge, M.Sc. (Applied), P.Geo. and Eugene Puritch, P.Eng. of P&E Mining Consultants Inc.

(3) Mineral Resources are estimated by conventional 3D block modelling based on wireframing at a 0.50% SnEq cut-off grade and inverse distance to the power of 3 grade interpolation. The 0.5% Sn/SnEq cut-off for wireframing vs 0.6% Sn/SnEq cut-off for resource reporting is due to a shift to lower Sn prices between the commencement and finalization of this report.

(4) SnEq is calculated using the formula: %SnEq = Sn% + (Cu% x 0.311) + (Zn% x 0.084).

(5) For the purpose of resource estimation, assays were capped at 20% Sn for the Lower Mine and 6% for Sn, 4% for Cu and 20% for Zn for the Upper Mine.

(6) The 0.6% Sn/SnEq resource cut-off grade was derived from the approximate March 31, 2016 two year LME trailing average Sn price of US$8.50/lb, Cu price of US$2.75/lb, and Zn price of US$0.90/lb, 88.5%, 85%

and 70% respective process recoveries, smelter payable of 95% and Sn refining charges of US$0.25.lb. Operating costs used were US$55/t mining, US$27/t processing and US$9/t G&A.

(7) Bulk densities of 2.77 tonnes/m^3 and 3.00 tonnes/m^3 have been applied for volume to tonnes conversion for the Lower and Upper Mine, respectively.

(8) Mineral Resources are estimated from near surface to a depth of approximately 869 m.

(9) Mineral Resources are classified as Indicated and Inferred based on drill hole and channel sample distribution and density, interpreted geologic continuity and quality of data.

(10) The mineral resources have been depleted for past mining, however, they contain portions that may not be recoverable pending a future engineering study.

(11) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. There is no certainty that all or any part of the Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration.

(12) Figures in table are rounded and may not sum exactly.

Table 14.12 summarizes the Indicated and Inferred Resources for the three metals estimated in the Upper Mine at a cut-off grade of 0.6% SnEq.

TABLE 14.12
UPPER MINE RESOURCE ESTIMATE AT 0.6% SNEQ CUT-OFF(1-12)

Indicated					
Lode	**Tonnes (k)**	**Sn %**	**Cu %**	**Zn %**	**SnEq %**
Dolcoath Middle	89	0.72	0.88	0.15	1.01
Dolcoath Middle Branch	36	0.90	0.33	0.02	1.00
Dolcoath Little NW	11	0.71	0.16	0.82	0.83
Dolcoath S. Entral	121	0.62	0.92	1.04	0.99
Total Indicated	**257**	**0.70**	**0.79**	**0.58**	**0.99**
Inferred					
Lode	**Tonnes (k)**	**Sn %**	**Cu %**	**Zn %**	**SnEq %**
Dolcoath Middle	22	0.75	0.05	0.01	0.77
Dolcoath Upper Main	274	0.61	0.59	0.22	0.82
Dolcoath Upper S. Branch	86	0.50	0.73	1.84	0.88
Dolcoath NVC	35	0.76	1.09	0.14	1.11
Dolcoath Little NW FW	1	0.84	0.03	0.25	0.87
Dolcoath Little NE	46	1.17	0.55	1.41	1.46
Total Inferred	**464**	**0.67**	**0.62**	**0.63**	**0.91**

(1) CIM definitions were followed for Mineral Resources.

(2) The Qualified Persons for this Mineral Resource estimate are: Richard Routledge, M.Sc. (Applied), P.Geo. and Eugene Puritch, P.Eng. of P&E Mining Consultants Inc.

(3) Mineral Resources are estimated by conventional 3D block modelling based on wireframing at a 0.50% SnEq cut-off grade and inverse distance to the power of 3 grade interpolation. The 0.5% Sn/SnEq cut-off for wireframing vs 0.6% Sn/SnEq cut-off for resource reporting is due to a shift to lower Sn prices between the commencement and finalization of this report.

(4) SnEq is calculated using the formula: %SnEq = Sn% + (Cu% x 0.311) + (Zn% x 0.084).

(5) For the purpose of resource estimation, assays were capped at 20% Sn for the Lower Mine and 6% for Sn, 4% for Cu and 20% for Zn for the Upper Mine.

(6) The 0.6% Sn/SnEq resource cut-off grade was derived from the approximate March 31, 2016 two year LME trailing average Sn price of US$8.50/lb, Cu price of US$2.75/lb, and Zn price of US$0.90/lb, 88.5%, 85% and 70% respective process recoveries, smelter payable of 95% and Sn refining charges of US$0.25.lb. Operating costs used were US$55/t mining, US$27/t processing and US$9/t G&A.

(7) Bulk densities of 2.77 tonnes/m^3 and 3.00 tonnes/m^3 have been applied for volume to tonnes conversion for the Lower and Upper Mine, respectively.
(8) Mineral Resources are estimated from near surface to a depth of approximately 869 m.
(9) Mineral Resources are classified as Indicated and Inferred based on drill hole and channel sample distribution and density, interpreted geologic continuity and quality of data.
(10) The mineral resources have been depleted for past mining, however, they contain portions that may not be recoverable pending a future engineering study.
(11) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. There is no certainty that all or any part of the Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration.
(12) Figures in table are rounded and may not sum exactly.

Table 14.13 summarizes the Indicated and Inferred Resources sensitivity for Sn/SnEq in the Upper Mine and Lower Mine above and below a cut-off grade of 0.6% Sn/SnEq.

TABLE 14.13
RESOURCE ESTIMATE SENSITIVITY TO SN/SNEQ CUT-OFF

Lower Mine Sn Cut-Off	Indicated Tonnes (k)	Sn%	Inferred Tonnes (k)	Sn%
0.70%	1,545	1.89	699	1.98
0.65%	1,601	1.85	719	1.94
0.60%	**1,660**	**1.81**	**738**	**1.91**
0.55%	1,714	1.77	759	1.87
0.50%	1,763	1.73	778	1.84
Upper Mine Sn/SnEq Cut-Off	**Indicated Tonnes (k)**	**SnEq%**	**Inferred Tonnes (k)**	**SnEq%**
0.70%	200	1.09	341	1.01
0.65%	227	1.04	396	0.96
0.60%	**257**	**0.99**	**464**	**0.91**
0.55%	293	0.94	536	0.87
0.50%	328	0.90	631	0.82

14.14 BLOCK MODEL VALIDATION

14.14.1 Reconciliation

WUM informed P&E that historically, there were no annual mine reconciliations for resource/reserves models, mining and processing. WUM compiled past mine production data from monthly reports from 1998 to 1999 and annual Measured and Indicated resource statements over the same period for No. 8 lode and Roskear A, B, BHW lodes. Results are compared in Table 14.14.

TABLE 14.14 RECONCILIATION			
Lode	**Tonnes**	**Sn%**	**Tonnes Contained Sn**
No. 8 Resources (1983-1998)	140,615	2.29	3,222
No. 8 Trammed (1989-1998)	230,186	1.69	3,890
Variance	89,571	-0.60	668
Variance%	64%	-60%	21%
Roskear A Resources (1989-1998)	64,775	2.29	1,485
Trammed (1989-1998)	140,850	1.80	2,530
Variance	76,075	-0.49	1,045
Variance%	117%	-21%	70%
Roskear B, BHW, D Resources (1989-1998)	258,708	1.78	4,606
Trammed (1989-1998)	462,678	1.58	7,291
Variance	203,970	-0.20	2,685
Variance%	79%	-11%	58%

Source: *Reynolds (2015)*

From Table 14.13 it is apparent that the Roskear and No. 8 operations were producing more tonnes by 64% to 117% and metal by 21% to 70% than estimated in the undiluted resources but at a lower grade of -21% to -60% versus resources. The loss in grade, if from dilution only, indicates only 13% to 36% dilution which would be expected for narrow lode shrinkage to longhole mining but this small grade dilution does not account for the higher production in tonnes. Clearly resource estimation in terms of grade has performed reasonably well in the historic operations and the supporting assay data must have been reasonably reliable despite the lack of CIM post-1998-implementated rigorous QA/QC programs for exploration.

14.14.2 Block Model

The block model was validated using a number of industry standard methods including visual and statistical methods, and internal peer review.

Visual examinations of composite and block grades were made on plans and sections on-screen and review of the reasonableness of estimation parameters, including:

- Number of composites used for estimation
- Number of holes/channels used for estimation
- Distance to the nearest composite
- Number of passes used to estimate grade.

Verification of GEMS-reported resource volumes was achieved by comparison to wireframe volumes. GEMS reports resources using the percent models or solids models. As part of the validation, the global estimates for several percent models and solids models were compared and found to differ by less than 1%.

Comparisons of the ID^3 model to the nearest neighbour (NN) model were made for tin on a global basis for each lode or grouped lode in the case Pryces and Tincroft. The estimate

generally agreed to within 10%, which is acceptable. Where outside this range for NN, good agreement was found with composites or averaged intercepts.

14.15 RESOURCE ESTIMATION CONCLUSIONS

Although there are minor uncertainties in the historic channel sampling and drilling, and a lack of QA/QC done to current standards, it is P&E's opinion that based on the high sampling density, availability of historic records to check, the evidence of check sampling done in the past and the due diligence in verifying the sampling data by WUM and P&E, that a portion of the Lower Mine resources may be categorized as Indicated Resource.

P&E believes that this resource estimate has no fatal flaws, is reasonable and has been carried out according to industry standard practice.

14.16 RECOMMENDATIONS

Based on the resources estimated in this report, P&E recommends undertaking a Preliminary Economic Assessment (PEA) of the South Crofty Project.

The potential for resources at the Roskear D and North Pool lodes was not addressed as part of this Project and this should be considered during the PEA study.

Assuming encouraging results from the PEA study, P&E recommends fill-in drilling to upgrade a portion of the Inferred Resources to Indicated Resources as a basis for Prefeasibility or Feasibility Study and estimation of mineral reserves. A preliminary diamond drilling campaign of 26,500 m is proposed to upgrade approximately 800,000 tonnes of resources in No. 2 and Dolcoath South lodes in the Lower Mine and Dolcoath Upper Main and Upper South South Branch lodes in the Upper Mine. These resources represent more than half of the Inferred Resources. The campaign assumes access from surface or upper level workings and controlled drilling of wedged holes off pilot holes. P&E estimates preliminary costs for the drill program at US$5.3 million.

15.0 MINERAL RESERVE ESTIMATES

This section is not applicable to this report.

16.0 MINING METHODS

This section is not applicable to this report.

17.0 RECOVERY METHODS

This section is not applicable to this report.

18.0 PROJECT INFRASTRUCTURE

The Project site has two 33kV overhead power lines which cross the Property. Capacity is sufficient for current operations however it is expected that this would need to be supplemented for future mining operations. The site has ready access to fresh water supplied by the South West Water utility with a six-inch main water line crossing the site location.

Site infrastructure from prior mining and development operations includes office and warehouse buildings, and the partially refurbished New Cooks Kitchen shaft. The modern decline extends to a depth of 120 m from surface at an average gradient of -16%. The decline has a width of 5 m and arch height of 4.5 m and extends in a south westerly direction through the Great Crosscourse fault above the historic Dolcoath mine workings (Figure 18.1).

The New Cooks Kitchen shaft extends to a depth of 873 m. The shaft is currently used as a primary exhaust point for ventilation of the decline.

Figure 18.1 Plan of Decline Showing Location of Portal and Shaft

Source: *Western United Mines Ltd. (2013).*

Mill and concentrator facilities from prior operations have been dismantled and removed.

19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable to this report.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

The historic South Crofty mine is situated in the town of Pool between Camborne and Redruth in Cornwall, England. It is part of the Cornwall and West Devon Mining Landscape, a United Nations Educational, Scientific and Cultural Organization ("UNESCO") designated World Heritage Site comprised of mining landscapes in Cornwall and West Devon. Mining activities at South Crofty are thought to have started circa 1592 with full scale mining commencing in the mid-17th century. Mining activities ceased at South Crofty in 1998.

Conditional permissions were granted for the above-ground (surface) and below-ground (underground) activities at the South Crofty mine in 2011 and 2013 respectively based on a proposal that had been prepared and submitted by WUM. The Environment Agency has agreed with WUM that the standard for the interim water discharge quality that will apply while dewatering will be set at the conclusion of dewatering trials (the discharge rate is already permitted).

The reader is cautioned that P&E has not reviewed the permitting requirements for the project and has relied on summary information regarding permitting that has been provided by Strongbow.

20.1 SCOPE OF THE PROJECT

The scope of works described in the existing surface and underground conditional permissions are likely adequate for the future development of the Project. This Technical Report includes a recommendation that the Project be advanced to a PEA. As the Project moves through advanced levels of study the scope of the Project and the scopes described in the conditional permissions should be critically compared and assessed on an ongoing basis taking the Outstanding Universal Value ("OUV") and other relevant aspects into consideration.

20.2 PERMITTING

Cornwall Council, the Local Planning Authority ("LPA"), issued a Grant of Conditional Planning Permission ("permission") for project-related surface activities in 2011 and another for project-related underground activities in 2013 based on the scope described in the applications submitted by the mine owner at that time. These two permissions permit mining and milling operations to 2071. Under the Town and Country Act 1990, Schedule 5, Part 1, s.1(2) the winning and working of minerals or the deposit of mine waste must cease not later than 60 years after the date of the permission (www.legislation.gov.uk).

20.2.1 Surface Permission

Cornwall Council issued the Grant of Conditional Planning Permission (Decision PA10/04564, dated November 3, 2011) for the project surface activities. The scope of the project as described in a July 2010 application included the proposed modernisation of the South Crofty Mine to allow continuation of winning and working of minerals by relocation to land surrounding the Tuckingmill Decline and by erection of buildings, plant and works for ore processing, ancillary processes, associated operations and deliveries, comprising:

- The main processing plant building also containing associated engineering works for additional accesses to the underground mine,
- Electricity substation, aggregate store, fuel storage, explosives storage,
- Tailings treatment,
- Emergency tailings storage,
- Ancillary buildings (i.e. high density thickeners, security, pumped mine water storage, loading ramp, chemical silo's, bottled gas compound, offices, changing rooms, stores, archive, vehicle and plant maintenance, storage containers),
- Earth works, mine shaft ventilation caps,
- Surface water management, water treatment plant,
- Access roads, car park areas, weighbridge and wheel washes,
- Aggregate screening and stockpiling area.

Under the terms of the surface permission, the permitted surface development is to be commenced by November 3, 2016. The Grant of Conditional Planning Permission extends to June 30, 2071.

The surface permission takes local and regional planning into consideration. As indicated in the surface permission, the development plan for this area comprises the Cornwall Structure Plan, adopted 2004; and the Cornwall Minerals Local Plan ("CMLP") adopted in 1998. Other documents of material consideration are the Regional Planning Guidance ("RPG10") adopted in 2001, the Regional Economic Strategy 2006 and National Planning Policy in the form of Planning Policy Statements ("PPS"s) and Minerals Policy Statements ("MPS"s). Part of the site falls within the Camborne and Redruth Mining District World Heritage Site ("WHS"). The installed Kerrier District Local Plan ("KDLP") and the emerging Camborne Pool, Illogan and Redruth Area Action Plan were also material considerations. The KDLP having not been adopted was given limited weight.

20.2.2 Underground Permission

Cornwall Council issued the Grant of Conditional Planning Permission (Decision PA10/05145, dated January 7, 2013) for underground activities and authorises:

- The underground winning and working of minerals within an area outlined on an drawing attached to the application,
- The development of surface operations ancillary to mining including the use of seven shafts for mechanical ventilation purposes (namely Robinsons, Middle Engine, Trevenson, Taylors, Williams, New Roskear and Simms),
- The continued use of New Cooks Kitchen Shaft with the potential for ore hoisting only with the prior written approval of the LPA,
- The retention of use of Maynes, Palmers, Caravan, Tredinnicks, Druids Whim, Dunns, Daylight shafts and their existing surface developments,
- The use of Water Engine and Gossan shafts and their proposed surface developments as approved by the LPA,
- The development of surface operations at or the use of other shafts (apart from those listed above) for access /ventilation purposes, necessary for and ancillary to mining operations with the prior written approval of the LPA.

20.3 ENVIRONMENTAL STUDIES

Atkins Engineering Limited completed two environmental statements for the below-ground and above-ground works at the South Crofty mine. The combined cumulative impacts are summarized in Table 20.1. Hogg (2012) indicates that permits are in place for future operations including water discharge subject to definition of discharge criteria to be determined by the Environment Agency on the conclusion of WUM's water treatment trials.

TABLE 20.1
ENVIRONMENTAL ASPECTS AND IMPACTS

Level of Impact	Aspect
Very High Importance	Economic and Social Impacts are major, and beneficial. Cultural heritage and Archaeology impacts are moderately beneficial.
High Importance	Landscape and Visual impacts are moderate adverse (nil for underground). Land stability impacts are nil.
Medium Importance	Flood Risk and Surface water Drainage impacts are slightly adverse (surface). Hydrology and Hydrogeology impacts are slightly adverse (underground). Noise and vibration impacts are slightly adverse. Air quality impacts are slightly adverse. Ecology impacts of the surface redevelopment are slightly adverse, but of the underground operations are beneficial. Traffic and Transport impacts are slightly adverse (nil for underground).
Low Importance	The impact on land quality is nil.

Source: *Hogg (2012).*

Atkins (2014) reports the proposals included the relocation of the processing plant and associated silos, tanks and other structures close to the existing mine portal at Tuckingmill Decline. This would allow the mine to function in a more efficient and environmentally sustainable way. The relocation would release land to enable completion of a link road and other proposed regeneration strategies for the area. The EIA addressed the special cultural heritage of the site, which has three Grade II listed mine structures and lies partly within the Cornwall and West Devon Mining Landscape World Heritage Site. Other assessed issues included mine drainage, surface water run-off and dealing with contamination from former mining activities. The site has important ecology, including lichens, bryophytes and bats which have evolved because of the mining activities, and is maintained and managed through an environmental management plan developed through the EIA.

20.4 SOCIAL OR COMMUNITY IMPACT

Environmental Statements for the project as proposed by WUM were prepared in support of its applications for permissions.

Based on P&E's review of project documentation provided to it and publically available information, the project as proposed in 2011 was not materially objected to with one exception. It is understood that in 2012 the United Nations' Educational, Scientific and Cultural

Organization (UNESCO) expressed its opposition to the project as proposed in 2011. It is worthy to note that UNESCO has no jurisdiction over planning decisions in the UK and its statement of opposition was made after the conditional planning permission had been granted.

20.5 CLOSURE

The mine would be closed in an orderly manner based on a closure plan that would be regularly updated and refined over the life of the Project. The key objectives of the closure plan would be to provide a safe and physically and chemically stable closed site, and comply with surface and underground planning permission closure requirements. Valued historic buildings and features including any facilities to be left in place at closure would be protected. P&E expects that certain site features would need to be left in place to help maintain the valued historic aesthetics and character of the area. Equipment, hazardous and non-hazardous wastes and unused fuel, lubricants and chemicals would be removed and disposed in accordance with regulatory requirements.

The shafts and portals would be gated to accommodate bat refuges or otherwise securely sealed. The underground mine would be allowed to naturally flood and water draining from the lowest mine opening at surface would be intercepted and piped to the sea. It is envisaged that the reclaimed site would be available for commercial and aesthetics amenity uses.

The mine would progressive carry out closure works over the operating life of the mine and complete the final closure works at the end of operations. It would then monitor the performance of the closure works for five years consistent with surface permission aftercare period requirements. A certificate of compliance would be issued to the mine owner by the Mineral Planning Authority ("MPA") upon the acceptance of the completed closure works and aftercare monitoring results. It is assumed that the mine would set aside funds for the care and maintenance of the mine drainage pipe line and shaft caps over the long term, and that the closure funding would be accrued over the life of the mine on a cost per tonne processed basis.

20.5.1 Surface Permission Closure Requirements

As defined in the surface permission, a surface restoration scheme would need to be submitted for approval at least two years prior to the expiration of the date in the permission or within two years of the permanent cessation of mineral working whichever is the sooner. The scheme is to detail:

- The nature of the intended after use of the site;
- The sequence and phasing of the restoration;
- Remediation of any contaminated land as necessary;
- The ripping of any compacted layers of the final cover to ensure adequate drainage and aeration such ripping to take place before the placing of topsoil. The machinery to be used in any soil re-spreading operations;
- The final levels of the reclaimed land and grading to prevent ponding of surface water. Drainage of the reclaimed land including the formation of suitably graded contours and the installation of artificial drainage as necessary;
- The reinstatement of the site and access roads by clearing plant, buildings and machinery, hardstandings, concrete and brickwork;

- Surface treatment of reclaimed areas. The planting and maintenance of trees, shrubs and hedgerows as appropriate including location, species, size, number and spacing. The seeding, fertilising, watering, draining or other treatment of the land;
- Location and type of fencing and gates;
- Time-scales for implementing and completing the works, and schedule of buildings and structures to remain and those to be removed. The surface permission indicates the structures that are to be removed as part of the restoration scheme, and the buildings/structures (capable of non-mineral after-use) that may be retained.

20.5.2 Underground Permission Closure Requirements

A restoration scheme for the surface features and shafts needs to be submitted for approval by the LPA at least two years prior to the expiration of the permission or within two years of the permanent cessation of mineral working. The scheme needs to detail:

- The nature of the intended after use of the surface features and shafts;
- Minewater treatment;
- Ventilation fans removal;
- Reinstatement of shafts to accommodate bat refuges.
- Restoration sequence, phasing and timescales.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable to this report.

22.0 ECONOMIC ANALYSIS

This section is not applicable to this report.

23.0 ADJACENT PROPERTIES

Cornish Minerals Limited, the parent company of Western United Mines Ltd., holds a number of mineral rights in Cornwall that cover a total area of approximately 150 km^2. These rights are held through Cornish Minerals Limited (Bermuda), and are indicated by the blue and purple regions in Figure 23.1.

Figure 23.1 Adjacent Properties Map showing CML (Bermuda) properties in Cornwall.

**Blue properties – 100% ownership; Pink properties – Partial ownership*
Source: *WUM (2014)*

There are many historical and past-producing mines throughout Cornwall and some of them proximal to South Crofty. A qualified person has been unable to verify the information on the adjacent properties held by Cornish Minerals Limited.

Wolf Minerals Ltd., an Australian and London AIM listed specialty metals company, has developed the Drakelands open pit tungsten-tin project in the neighbouring county of Devon and started production in 2015.

24.0 OTHER RELEVANT DATA AND INFORMATION

To the best of the authors' knowledge there is no other relevant data, additional information or explanation necessary to make the Report understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

The South Crofty Project represents a significant part of the mining history of Cornwall and the significant metal endowment of southwest England. The past-producing mines within the South Crofty Project represent over 400 years of production history, initially for copper and later for tin. The project is located in a well-known and well-explored metallogenic province with excellent regional infrastructure.

The South Crofty Project is an advanced property with extensive underground development and permits in place. Although the structural controls are locally complex, the mineralized lodes overall present a relatively simple geometry with lode formation controlled by conjugate fracture sets that producing branching lodes, which are generally steeply dipping either to the south or the north at 60 to 80° to depths over 1,000 m from surface. Most lodes follow a similar northeast strike direction in a zone over 4 km long.

The Great Crosscourse fault is a late structure that separates the project into east and west segments and influenced the historical development of the project. The Great Crosscourse is a cemented fault, and is itself partially mineralized. It acts as a hydraulic barrier that may potentially allow staged dewatering and operation of the eastern and western parts of the project separately.

The South Crofty Project benefits from an extensive historical resource database for deep lodes with over 55,000 m of channel sampling combined with 31,000 m of modern drilling, which has enabled an NI 43-101 resource to be reported for the Property. Extensive and high quality models of the underground development and previously mined volumes have been produced for the project from original survey data, giving excellent insight to the geometry of the worked lodes and areas of opportunity. Review of sampling protocols and QA/QC for the modern drilling concluded practices were adequate but identified opportunities for improvement.

P&E carried out assay data verification for the recent drilling in March-April 2015. The assay certificates in spreadsheet format were obtained directly from AGAT, SGS and WAI laboratories. A total of 5,597 records for tin, copper, zinc and lead assays contained in the mineral resource wireframes were extracted for verification against laboratory assay records. Approximately 1,798 assays were located and checked. A number of discrepancies were noted and the database was corrected and updated.

In addition to the data verification reported above, P&E reviewed the QA/QC for the South Crofty Project analyses from the recent drilling and concludes that the analyses are acceptable for resource estimation.

P&E's site visit confirmed that core recovery was generally good, the lodes were reasonably competent and recovery was over 90% for core examined.

In P&E's opinion the drill hole and assay/analytical databases was suitable for the estimation of Mineral Resources and Mineral Reserves.

Mineral Resources were classified as Indicated and Inferred based on completeness of channel sampling (levels above/below, raises), the drill hole spacing, confidence in the assaying for drilling, and geologic confidence in grade continuity. The Indicated and Inferred resources for

the Lower Mine includes pillars and sills, some of which may not be recoverable pending an engineering study.

The South Crofty Project total Indicated Mineral Resource for a 0.6% Sn/SnEq block cut-off grade is 1.92 million tonnes averaging 1.70% Sn/SnEq. The total Inferred Resource for a 0.6% Sn/SnEq block cut-off grade is 1.20 million tonnes averaging 1.52% Sn/SnEq.

Although there are number of uncertainties in the historic data, appropriate due diligence has been exercised to compile and verify data from mine records and in P&E's opinion, the resource estimate has no fatal flaws, is reasonable and has been undertaken according to industry standard practice.

There are many opportunities to both increase these resources and to raise the confidence category of those resources by additional drilling and development.

Similarly, there are additional historic but unconnected mines within the mineral rights area that represent additional exploration or development potential to the Project.

The wealth of information available enhances the project understanding, and significantly de-risks the interpretation of the geology and distribution of mineralized lodes and contained metal as well as the extent of underground workings and previously mined areas. However, it is clear that some parts of the historic data set are lost or otherwise incomplete, and that this represents some risk to the Project.

26.0 RECOMMENDATIONS

26.1 RECOMMENDATIONS AND PROPOSED BUDGET

The Phase 1 focus for the project is to exit administration, address surface planning conditions and undertake a Preliminary Economic Assessment ("PEA"), which is expected to be completed within 9 months of TSX Venture Exchange approval of the agreement. The budget for completion of this phase of work is summarised below in Canadian Dollars. This budget does not include payments to be made under the agreement between Strongbow, Galena and Tin Shield, nor does it cover the general working capital needs of Strongbow outside of the direct costs related to South Crofty.

Exit administration	$315,000
Operating costs ($70,000/month for six months)	$420,000
Technical Report	$100,000
Surface planning conditions	$30,000
Preliminary Economic Assessment	$250,000
Total	**$1,125,000**

The potential for resources at the Roskear D and North Pool lodes was not addressed as part of this Project and this should be considered during the PEA study.

In Phase 2, assuming encouraging results from the PEA study, P&E recommends fill-in drilling to upgrade a portion of the Lower Mine Inferred Resources to Indicated Resources as a basis for Prefeasibility or Feasibility Study and estimation of mineral reserves. A preliminary diamond drilling campaign of 26,500 m is proposed to upgrade approximately 320,000 tonnes of resources in No. 2 and Dolcoath South lodes in the Lower Mine, and to test areas adjacent to the Dolcoath and Roskear lodes where the is potential for a material increase in the resource. The campaign assumes access from surface or upper level workings and controlled drilling of wedged holes off pilot holes. P&E estimates preliminary costs for the drill program at $5.3 million.

27.0 REFERENCES

Chesley, J.T., Halliday, A.N., Snee, L.W., Mezger, K., Shepherd, T.J., and Scrivner, R.C., 1993, Thermochronology of the Cornubian batholith in southwest England: Implications for pluton emplacement and protracted hydrothermal mineralization, Geochimica et Cosmochimica Acta, vol.57, pp. 1817-1835.

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28.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

EUGENE J. PURITCH, P.ENG.

I, Eugene J. Puritch, P. Eng., residing at 44 Turtlecreek Blvd., Brampton, Ontario, L6W 3X7, do hereby certify that:

1. I am an independent mining consultant and President of P&E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Technical Report and Resource Estimate on the South Crofty Tin Project, Cornwall, United Kingdom", (the "Technical Report") with an effective date of February 26, 2016.
3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen's University. In addition I have also met the Professional Engineers of Ontario Academic Requirement Committee's Examination requirement for Bachelor's Degree in Engineering Equivalency. I am a mining consultant currently licensed by Professional Engineers and Geoscientists New Brunswick (License No. 4778), Professional Engineers, Geoscientists Newfoundland & Labrador (License No. 5998), Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216), Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252) the Professional Engineers of Ontario (License No. 100014010) and Association of Professional Engineers and Geoscientists of British Columbia (License No. 192893). I am also a member of the National Canadian Institute of Mining and Metallurgy.

   I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

   I have practiced my profession continuously since 1978. My summarized career experience is as follows:
   - Mining Technologist - H.B.M.& S. and Inco Ltd., ...1978-1980
   - Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd., ...1981-1983
   - Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine, ...1984-1986
   - Self-Employed Mining Consultant – Timmins Area,.....1987-1988
   - Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, ...1989-1995
   - Self-Employed Mining Consultant/Resource-Reserve Estimator, ...1995-2004
   - President – P&E Mining Consultants Inc,.....2004-Present
4. I have not visited the Property that is the subject of this report.
5. I am responsible for authoring Sections 2, 3, 15 to 22, 24 and co-authoring Sections 14, 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date February 26, 2016
Signing Date: May 31, 2016

{SIGNED AND SEALED}
[Eugene J. Puritch]

_____
Eugene J. Puritch, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

JARITA BARRY, P.GEO.

I, Jarita Barry, P.Geo., residing at 2485B Hwy 3A, Nelson, British Columbia, V1L 6K7, do hereby certify that:

1. I am an independent geological consultant contracted by P & E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Technical Report and Resource Estimate on the South Crofty Tin Project, Cornwall, United Kingdom", (the "Technical Report") with an effective date of February 26, 2016.
3. I am am a graduate of RMIT University of Melbourne, Victoria, Australia, with a B.Sc. in Applied Geology. I have worked as a geologist for a total of 10 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by the Associations of Professional Engineers and Geoscientists of British Columbia (License No. 40875) and Professional Engineers and Geoscientists Newfoundland & Labrador (License No. 08399). I am also a member of the Australasian Institute of Mining and Metallurgy of Australia (Member No. 305397);

   I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

   My relevant experience for the purpose of the Technical Report is:

   - Geologist, Foran Mining Corp. 2004
   - Geologist, Aurelian Resources Inc.....2004
   - Geologist, Linear Gold Corp. 2005-2006
   - Geologist, Búscore Consulting 2006-2007
   - Consulting Geologist (AusIMM) 2008-2014
   - Consulting Geologist, P.Geo. (APEGBC/AusIMM) .....2014-Present.

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for co-authoring Sections 11, 12, 25 and 26 of this Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying all of the tests in section 1.5 of National Instrument 43-101. I am independent of the Vendor and the Property.
7. I have had no prior involvement with the project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date February 26, 2016
Signing Date: May 31, 2016

{SIGNED AND SEALED}
[Jarita Barry]

_____
Jarita Barry, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

ALFRED S. HAYDEN, P. ENG.

I, Alfred S. Hayden, P. Eng., residing at 284 Rushbrook Drive, Ontario, L3X 2C9, do hereby certify that:

1. I am currently President of:
   EHA Engineering Ltd.,
   Consulting Metallurgical Engineers
   Box 2711, Postal Stn. B.
   Richmond Hill, Ontario, L4E 1A7

2. This certificate applies to the technical report titled "Technical Report and Resource Estimate on the South Crofty Tin Project, Cornwall, United Kingdom", (the "Technical Report") with an effective date of February 26, 2016.

3. I graduated from the University of British Columbia, Vancouver, B.C. in 1967 with a Bachelor of Applied Science in Metallurgical Engineering. I am a member of the Canadian Institute of Mining, Metallurgy and Petroleum and a Professional Engineer and Designated Consulting Engineer registered with Professional Engineers Ontario. I have worked as a metallurgical engineer for over 40 years since my graduation from university.

   I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

4. I have not visited the Property that is the subject of this report.

5. I am responsible for authoring of Sections 13 and co-authoring Sections 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.

6. I am independent of the issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.

7. I have had no prior involvement with the project that is the subject of this Technical Report.

8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.

9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date February 26, 2016
Signing Date: May 31, 2016

{SIGNED AND SEALED}
[Alfred Hayden]

_____
Alfred S. Hayden, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

RICHARD E. ROUTLEDGE, P.GEO.

I, Richard E. Routledge, P.Geo., residing at 82 Oriole Drive, Holland Landing, Ontario, L9N 1H3, do hereby certify that:

1. I am an independent Consulting Geologist who has been contracted by P&E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Technical Report and Resource Estimate on the South Crofty Tin Project, Cornwall, United Kingdom", (the "Technical Report") with an effective date of February 26, 2016.
3. I graduated with a Bachelor of Science degree, Major in Geology, from Sir George Williams (Concordia) University in 1971 and with a Masters degree in Applied Exploration Geology from McGill University in 1973. I have worked as a geologist for about 38 years since post-graduation. I am a Professional Geologist registered in the Province of Ontario (APGO No. 1354) and licensed by the Northwest Territories (NAPEGG No. L744).

   I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. My relevant experience for the purpose of the Technical Report is:

   - Independent Consulting Geologist. 2011 – Present
   - Roscoe Postle Associates Inc., Consulting Geologist 1998 – 2011
   - Independent Consulting Geologist 1994 – 1997
   - Vice President Exploration, Greater Lenora Resources Corp. 1993 – 1994
   - Teck Explorations Ltd, Evaluations and Mineral Commodities Geologist. 1985 – 1992
   - Derry, Michener, Booth & Wahl, Exploration and Consulting Geologist. 1973 – 1985

4. I have visited the property that is the subject of this Technical Report on November 17 to 21, 2014.
5. I am responsible for co-authoring Sections 11, 12, 14, 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had no prior involvement with the project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date February 26, 2016
Signing Date: May 31, 2016

{SIGNED AND SEALED}
[Richard E. Routledge]

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Richard E. Routledge, P. Geo.

CERTIFICATE OF QUALIFIED PERSON

DAVID BURGA, P.GEO.

I, David Burga, P. Geo., residing at 3884 Freeman Terrace, Mississauga, Ontario, do hereby certify that:

1. I am an independent geological consultant contracted by P & E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Technical Report and Resource Estimate on the South Crofty Tin Project, Cornwall, United Kingdom", (the "Technical Report") with an effective date of February 26, 2016.
3. I am a graduate of the University of Toronto with a Bachelor of Science degree in Geological Sciences (1997). I have worked as a geologist for a total of 12 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by the Association of Professional Geoscientists of Ontario (License No 1836).

   I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

   My relevant experience for the purpose of the Technical Report is:

   - Exploration Geologist, Cameco Gold 1997-1998
   - Field Geophysicist, Quantec Geoscience 1998-1999
   - Geological Consultant, Andeburg Consulting Ltd. 1999-2003
   - Geologist, Aeon Egmond Ltd. 2003-2005
   - Project Manager, Jacques Whitford 2005-2008
   - Exploration Manager – Chile, Red Metal Resources 2008-2009
   - Consulting Geologist 2009-Present
4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Sections 4 to 10 and 23 and co-authoring Sections 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had no prior involvement with the Property that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date February 26, 2016
Signing Date: May 31, 2016

{SIGNED AND SEALED}
[David Burga]

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David Burga, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

YUNGANG WU, P.GEO.

I, Yungang Wu, P. Geo., residing at 3246 Preserve Drive, Oakville, Ontario, L6M 0X3, do hereby certify that:

1. I am an independent consulting geologist contracted by P&E Mining Consultants Inc.
2. This certificate applies to the technical report titled "Technical Report and Resource Estimate on the South Crofty Tin Project, Cornwall, United Kingdom", (the "Technical Report") with an effective date of February 26, 2016.
3. I am a graduate of Jilin University, China with a Master Degree in Mineral Deposits (1992). I am a geological consultant and a registered practising member of the Association of Professional Geoscientist of Ontario (Registration No. 1681). I am also a member of the Ontario Prospectors Association.

   I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

   My relevant experience for the purpose of the Technical Report is as follows:
   - Geologist –Geology and Mineral Bureau, Liaoning Province, China…….. 1992-1993
   - Senior Geologist – Committee of Mineral Resources and Reserves of Liaoning, China… 1993-1998
   - VP – Institute of Mineral Resources and Land Planning, Liaoning, China…….. 1998-2001
   - Project Geologist–Exploration Division, De Beers Canada…….. 2003-2009
   - Mine Geologist – Victor Diamond Mine, De Beers Canada……. 2009-2011
   - Resource Geologist– Coffey Mining Canada…….2011-2012
   - Consulting Geologist……..Present
4. I have not visited the property that is the subject of this Technical Report.
5. I am responsible for co-authoring Sections 14, 25 and 26 of the Technical Report along with those sections of the Summary pertaining thereto.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have not had prior involvement with the property that is the subject of the Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading;

Effective Date February 26, 2016
Signing Date: May 31, 2016

{SIGNED AND SEALED}
[Yungang Wu]

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Yungang Wu, P.Geo.

APPENDIX I. VARIOGRAMS

Channel Composites Sn% (All) Downhole Linear

Channel Composites (All) 3D Sn% Omni Strike (5 m Lag)

Channel Composites (All) 3D Strike (5 m Lag 45° Spread)

Channel Composites (All) 3D Sn% on Dip (30 m Lag 45° Spread)

Channel Composites (All) 3D Sn% on Plunge (30 m Lag 45° Spread)

Roskear A Channels Strike (5 m Lag)

Roskear B Channels Strike (5 m Lag)

Pryces Channels Strike (5 m Lag)

Dolcoath North Composites Strike (5 m Lag)

Dolcoath North Sn% Composites Dip (5 m Lag)

Dolcoath South Composites Strike (5 m Lag)

Dolcoath Upper Main Sn Composites Strike Omni (15 m Lag)

Dolcoath Upper Main Sn Composites Dip Omni (15 m Lag)

Dolcoath Upper Main Cu Composites Linear Downhole

Dolcoath Upper Main Cu Composites Strike Omni (15 m Lag)

Dolcoath Upper Main Cu Composites Dip Omni (15 m Lag)

Dolcoath Middle Cu Composites Strike Omni (50 m Lag)

Dolcoath Upper Main Zn Composites Strike Omni (15 m Lag)