

9 October 2020

## **New Hyperspectral Imaging Targets Identified At Big Springs**

- Satellite hyperspectral imaging completed over the entire Big Springs tenement package.
- Hyperspectral imaging has been successful in recognising areas of known mineralisation, providing confidence in the effectiveness of this technique.
- A number of preliminary new targets have also been identified with indicative alteration footprints consistent with Carlin-style gold mineralisation.
- Hyperspectral imaging study results will be combined with other geology, geochemistry and recently completed geophysical (gravity and magnetics) datasets to further evaluate and rank targets for upcoming exploration programs.

Anova Metals Ltd (ASX: AWV) (the "Company" or "Anova") is pleased to provide an update on its current exploration activities at Big Springs. A satellite hyperspectral imaging study covering the entire Big Springs project to identify Carlin-style gold mineralisation alteration signals has been completed.

Hyperspectral Imaging is an effective tool to identify broad alteration patterns related to hydrothermal fluids, and the results of the survey are used to map and identify areas that have been subject to alteration processes, which are related to gold mineralisation in Nevada.

Intense signals of illite, clay minerals, iron oxide, and silicon (silicification alteration) have been outlined during the studies. These minerals are typically related with Carlin-style gold mineralisation in Nevada. The hyperspectral results successfully recognised areas of known mineralisation, giving confidence in the effectiveness of the survey

Encouragingly, a number of previously identified targets based on historic information like Mac Ridge, Golden Dome and Dorsey Creek have been reaffirmed by the survey (Figures 1-4). New targets have also been identified such as Jacks Creek and Gold Dome South.

Anova Managing Director – Dr Mingyan (Joe) Wang said:

"The Company is thrilled with the outcome of this initial interpretation from the hyperspectral imaging study over the entire Big Springs Project. It has reaffirmed some of our known targets and improved our understanding of the geology and mineralisation in the region. New targets such as Jack's Creek have been identified as well. Combining with other information, including the geophysics survey results in 2020, Anova will continue to build a robust pipeline of drill targets that can be tested with a major drill program in 2021 and onwards. Results from the gravity survey completed are imminent and the magnetic survey and IP survey reprocessing are both well advanced."

Two satellite based raw datasets were utilised for this study, the ASTER and the WordView-2 Satellite Sensor.

ASTER is a 15m, 14 band multispectral instrument and its satellite image data can be used for geology and soil studies, digital elevation models and detailed digital terrain models. ASTER has been widely used for mapping the response of exposed rock units to infrared scanning.

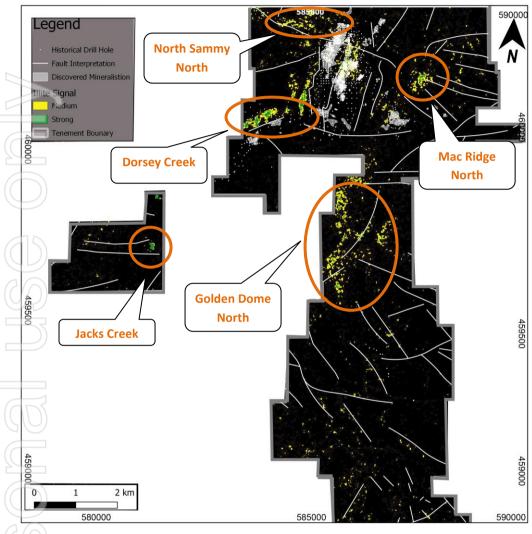
The WordView-2 sensor provides a high-resolution panchromatic band and eight multispectral bands for the purpose of full colour images for enhanced spectral analysis, mapping, and monitoring applications. With improved agility, WorldView-2 can collect very large areas of multispectral imagery in a single pass. WordView-2 sensor data has been widely used for structure interpretation.

The hyperspectral imaging results will be combined with existing data and new data being generated by the current exploration program. Results from a gravity survey are imminent and the magnetic survey and IP survey reprocessing are both well advanced. This combined work will be used to evaluate and rank targets to guide drilling programs in 2021 and onward.

#### **About the Big Springs Gold Project**

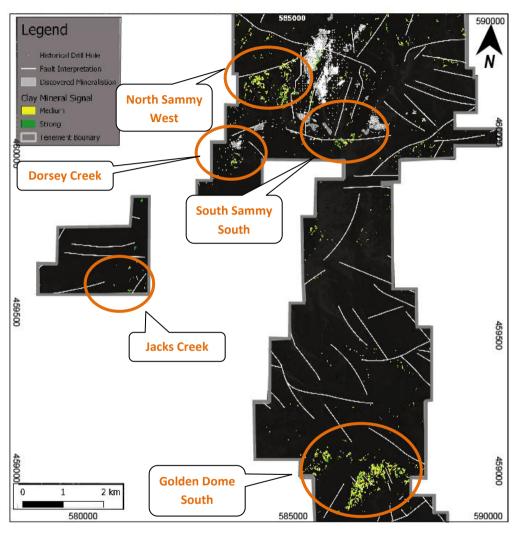
The Big Springs Gold Project is a Carlin style gold deposit located 80km north of Elko in NE Nevada, USA that produced 386,000 ounces of gold between 1987 and 1993, ceasing production due to low gold prices. The Project is located in proximity to multiple +10 Moz resource Carlin style gold projects within the region, including the producing Jerritt Canyon Gold Mine which is 20km south of Big Springs. The Project has Measured, Indicated and Inferred Resources of 16 Mt at 2.0 g/t Au for 1.03 Moz (refer table 1 and ASX release 26 June 2014), over 50sq km of highly prospective ground. The high-grade portion of the Mineral Resource, reported at a cut-off grade of 2.5 g/t gold, contains 3.1 Mt @ 4.2 g/t for 415 Koz. Big Springs is fully permitted for Stage 1 mining operations.

Figure 1: Hyperspectral Imaging - Illite Signal



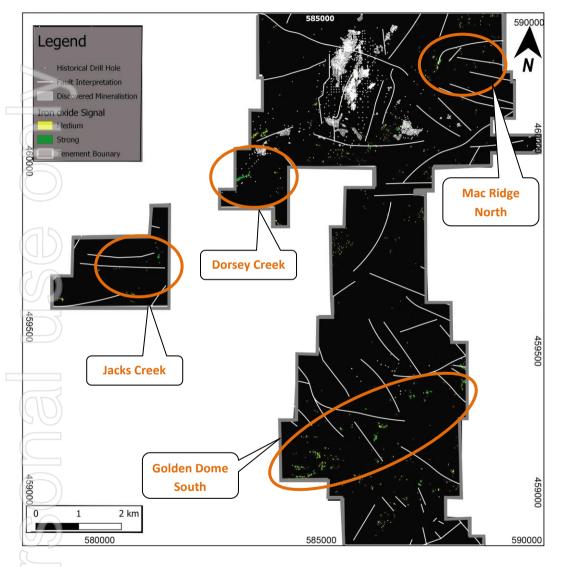
Consistency has been found at South Sammy and Beadles Creek between discovered mineralisation and illite signal

Figure 2: Hyperspectral Imaging - Clay Signal



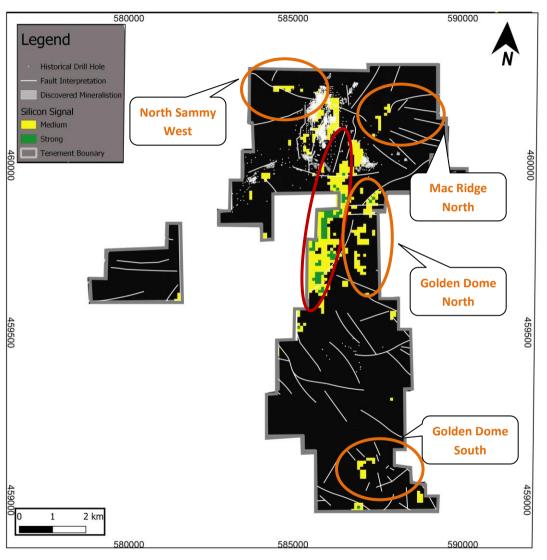
Consistency has been found at Sammy's Creek between discovered mineralisation and clay signal

Figure 3: Hyperspectral Imaging - Iron Oxide Signal



Consistency has been found at Sammy's Creek and Mac Ridge between discovered mineralisation and iron oxide signal

Figure 4: Hyperspectral Imaging - Silicon Signal



Consistency has been found at Sammy's Creek and Mac Ridge between discovered mineralisation and silicon signal (red circle highlight is believed to be quartzite layer outcrop)

**Table 1: Mineral Resources** 

		Measured			Indicated			Inferred			Combined	
Project	kT	Grade	Koz	kT	Grade	Koz	kT	Grade	Koz	kT	Grade	Koz
Big Springs (JORC 2012)	Big Springs (JORC 2012)											
North Sammy	346	7.0	77.9	615	3.1	62.2	498	2.8	44.1	1,458	3.9	184.1
North Sammy Contact				443	2.3	32.4	864	1.4	39.3	1,307	1.7	71.8
South Sammy	295	4.0	38.2	3,586	2.1	239.9	3,721	1.3	159	7,602	1.8	437.2
Beadles Creek				119	2.2	8.2	2,583	2.3	193.5	2,702	2.3	201.7
Mac Ridge							1,887	1.3	81.1	1,887	1.3	81.1
Dorsey Creek							278	1.4	12.9	278	1.4	12.9
Briens Fault							799	1.6	40.5	799	1.6	40.5
Big Springs Sub-Total	641	5.6	116.1	4,762	2.2	343.3	10,630	1.7	570.4	16,032	2.0	1,029.9

Note: Appropriate rounding applied

The information in this announcement that relates to the mineral resources for the Company's Big Springs Project was first reported by the Company in its resource announcement ("Resource Announcement") dated 26 June 2014. The Company confirms that it is not aware of any new information or data that materially affects the information included in the Resource Announcement, and in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the Resource Announcement continue to apply and have not materially changed.

#### **Competent Person Statement**

The information in this report that relates to Exploration Result for the Big Springs Project is based on information compiled by Dr. Geoffrey Xue. Dr. Xue is a full time employee of Anova and a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr. Xue consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

The information in this report that relates to Mineral Resources for the Big Springs Project is based on information compiled by Mr Lauritz Barnes, Principal Consultant Geologist – Trepanier Pty Ltd. Mr Barnes is a shareholder of Anova. Mr Barnes is a member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Barnes consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

### Appendix 1: JORC Code, 2012 Edition - Supporting tables.

The following section is provided to ensure compliance with the JORC (2012) requirements for the reporting of exploration results for Big Springs gold deposit in Nevada.

### **Section 1: Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling	Nature and quality of sampling (eg cut channels, random	Anova Metals Ltd (ASX:AWV) is reporting a new
techniques	chips, or specific specialised industry standard	satellite hyperspectral imaging survey conducted
	measurement tools appropriate to the minerals under	during September 2020 to October 2020 at the
	investigation, such as down hole gamma sondes, or	Big Springs Project in Nevada.
	handheld XRF instruments, etc). These examples should	Two sets of satellite sensor data were used
	not be taken as limiting the broad meaning of sampling.	which are the ASTER and WorldView-2.
	Include reference to measures taken to ensure sample	Parameters for both sensors are below:
	representivity and the appropriate calibration of any	ASTER:
	measurement tools or systems used.	Subsystem Band Spectral Range (µm) Spatial Quantization No. Resolution, m Levels
	Aspects of the determination of mineralisation that are	VNIR 2 0.63-0.69 15 8 bits 3N 0.78-0.86
20	Material to the Public Report.	3B 0.78-0.86 4 1.60-1.70
$\cup$	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation	5 2.145-2.185 SWIR 6 2.185-2.225 30 8 bits
	drilling was used to obtain 1 m samples from which 3 kg	7 2.235-2.285 8 2.295-2.365
	was pulverised to produce a 30 g charge for fire assay').	9 2.360-2.430 10 8.125-8.475
	In other cases more explanation may be required, such	11 8.475-8.825 TIR 12 8.925-9.275 90 12 bits
	as where there is coarse gold that has inherent sampling	13 10.25-10.95 14 10.95-11.65
	problems. Unusual commodities or mineralisation types	WorldView-2:
OR	(eg submarine nodules) may warrant disclosure of	Launch Date 8th/ October/2009
$(\zeta(U))$	detailed information.	Height 770Km, Sun synchronous orbit
		Panchromatic: 450-800nm
		multispectral
		Coastal: 400-450nm Red: 630-690nm
		Sensor Bands Blue: 450-510nm Red edge: 705-745nm
20		Green: 510-580nm Yellow: 585-625nm
		NEAR-IR1:770-895nm
		NEAR-IR2:860-1040nm Panchromatic nadir: 0.46m
<b>a</b> 5		20 degree off-nadir: 0.52m
		Sensor Resolution   Multispectral nadir:1.85m
		20 degree off nadir:2.07m
		Dynamic range 11 bits per pixe1
		Swath at nadir 16.4km
		Mono collection:138*112km (8strips) Collection per pass
		Stereo collection:63*112km (4 pairs)
		CE90 accuracy 3.5m CE90 accuracy without ground control
П		Storage 21996b solid storage, incorporating EDAC
		•
Drilling	Drill type (eg core, reverse circulation, open-hole	Not Applicable
techniques	hammer, rotary air blast, auger, Bangka, sonic, etc) and	
	details (eg core diameter, triple or standard tube, depth	
	of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	
	whether core is offented and it so, by what method, etc).	

Criteria	JORC Code explanation	Commentary
Drill	Method of recording and assessing core and chip sample	Not Applicable
sample	recoveries and results assessed.	**
recovery		
	Measures taken to maximise sample recovery and	
	ensure representative nature of the samples.	
	Whether a relationship exists between sample recovery	
	and grade and whether sample bias may have occurred	
	due to preferential loss/gain of fine/coarse material.	
Logging	Whether core and chip samples have been geologically	Not Applicable
33 8	and geotechnically logged to a level of detail to support	
	appropriate Mineral Resource estimation, mining	
	studies and metallurgical studies.	
	Whether logging is qualitative or quantitative in nature.	
	Core (or costean, channel, etc) photography.	
	The total length and percentage of the relevant	
	intersections logged.	
Sub-	If core, whether cut or sawn and whether quarter, half	Not Applicable
sampling	or all core taken.	
techniques	If non-core, whether riffled, tube sampled, rotary split,	
and sample	etc and whether sampled wet or dry. For all sample	
preparatio	types, the nature, quality and appropriateness of the	
n	sample preparation technique.	
7	Quality control procedures adopted for all sub-sampling	Not Applicable
	stages to maximise representivity of samples.	rr rr
Quality of	Measures taken to ensure that the sampling is	
assay data	representative of the in situ material collected, including	
and	for instance results for field duplicate/second-half	
laboratory	sampling.	
tests	Whether sample sizes are appropriate to the grain size	
	of the material being sampled.	
	The nature, quality and appropriateness of the assaying	
	and laboratory procedures used and whether the	
	technique is considered partial or total.	
	For geophysical tools, spectrometers, handheld XRF	Refer to ASTER and WorldView-2 parameter
	instruments, etc, the parameters used in determining	table above
((//))	the analysis including instrument make and model,	
	reading times, calibrations factors applied and their	
	derivation, etc.	
	Nature of quality control procedures adopted (eg	Not Applicable
	standards, blanks, duplicates, external laboratory	
	checks) and whether acceptable levels of accuracy (ie	
	lack of bias) and precision have been established.	
Verification	The verification of significant intersections by either	Not Applicable
of sampling	independent or alternative company personnel. The use	
and .	of twinned holes.	
assaying		
	Documentation of primary data, data entry procedures,	
	data verification, data storage (physical and electronic)	
	protocols.	
	Discuss any adjustment to assay data.	All 1
Location of	Accuracy and quality of surveys used to locate drill holes	All data are conform to the NAD 83/UTM 11N
data points	(collar and down-hole surveys), trenches, mine	metric coordinate system.
	workings and other locations used in Mineral Resource	
	estimation.	
	Specification of the grid system used.	
<b>D</b> .	Quality and adequacy of topographic control.	
Data	Data spacing for reporting of Exploration Results.	
spacing		

Criteria	JORC Code explanation	Commentary
and distributio n	Whathautha data angaing and distribution is sufficient	Resolution for WorldView-2 sensor data is     0.46m for Panchromatic nadir, and 1.85m for     Multispectral nadir. Data from this sensor is idea
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	<ul> <li>for structure interpretation.</li> <li>Resolution for ASTER is 15 meters for VNIR, 30 meters for SWIR, and 90 meters for TIR.</li> </ul>
	Whether sample compositing has been applied.	
Orientation	Whether the orientation of sampling achieves unbiased	Satellite data.
of data in relation to	sampling of possible structures and the extent to which this is known, considering the deposit type.	
geological	this is known, considering the deposit type.	
structure		
	If the relationship between the drilling orientation and	
	the orientation of key mineralised structures is	
	considered to have introduced a sampling bias, this	
	should be assessed and reported if material.	
Sample security	The measures taken to ensure sample security.	<ul> <li>All data were from the ASTER and WorldView-2 satellite data company.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>All data were initially processed and interpreted by a qualified person.</li> </ul>

# **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites	• The Big Springs project tenements, comprising a total of 710 unpatented Lode Mining Claims (14,149 acres or 5,726 ha) are all owned by Anova. Claims are subject to a Net Smelter Return ranging from zero 3% payable to various parties. There are no known adverse surface rights.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	<ul> <li>There are no known impediments. All liabilities with respect to the decommissioning of the open pit mines are the responsibility of AngloGold Ashanti N.A Inc.</li> </ul>
Exploratio n done by other parties	Acknowledgment and appraisal of exploration by other parties.	Not Applicable
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Project's disseminated, sediment-hosted gold deposits have been classified by several authors as typical Carlin-type deposits. The Big Springs deposits are hosted predominantly within the flaser bedded siltstone of the Overlap Assemblage, which is Mississippian to Permian in age (30Ma to 360Ma), with structure and host stratigraphy being the primary controls on gold mineralisation. Mineralisation at North Sammy is typically hosted within black, highly carbonaceous siltstone and calcareous sandy siltstone. These units are generally located between the Argillic thrust of the footwall and the Schoonover thrust in the hangingwall. Individual high-grade ore shoots at North Sammy generally plunge moderately to the NNW and are controlled by intersections of E-W-striking faults with the NE-SW-striking Argillic thrust. The South Sammy Creek deposit is more complex with a series of controlling structures, in particular the Briens fault along the western margin. On the eastern side of the Briens fault, the thick, tabular South Sammy ore deposit forms a largely continuous zone that is semi-concordant with the permeable and brittle host rocks of the Overlap Assemblage.</li> <li>The Mac Ridge East Prospect is believed to be located in the Hanson Creek formation – the main host to gold mineralization at Jerritt Canyon.</li> </ul>
Drill hole Informatio n	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes, including easting and northing of the drill hole collar, elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth plus hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from	Not Applicable

Criteria	JORC Code explanation	Commentary
	the understanding of the report, the Competent Person	
	should clearly explain why this is the case.	
Data	In reporting Exploration Results, weighting averaging	Not Applicable
aggregatio	techniques, maximum and/or minimum grade	
n methods	truncations (eg cutting of high grades) and cut-off grades	
	are usually Material and should be stated. Where	
	aggregate intercepts incorporate short lengths of high	
	grade results and longer lengths of low grade results, the	
	procedure used for such aggregation should be stated	
	and some typical examples of such aggregations should	
	be shown in detail. The assumptions used for any	
	reporting of metal equivalent values should be clearly	
	stated.	
Relationshi	These relationships are particularly important in the	Not Applicable
p between	reporting of Exploration Results. If the geometry of the	
mineralisa	mineralisation with respect to the drill hole angle is	
tion widths	known, its nature should be reported. If it is not known	
and	and only the down hole lengths are reported, there	
intercept	should be a clear statement to this effect (eg 'down hole	
lengths	length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and	See figures and maps provided in the text of the
	tabulations of intercepts should be included for any	announcement.
	significant discovery being reported These should	
	include, but not be limited to a plan view of drill hole	
	collar locations and appropriate sectional views.	
Balanced	Where comprehensive reporting of all Exploration	The CP believes this report to be a balanced
reporting	Results is not practicable, representative reporting of	representation of exploration undertaken.
	both low and high grades and/or widths should be	
	practiced to avoid misleading reporting of Exploration	
	Results.	
Other	Other exploration data, if meaningful and material,	All meaningful & material exploration data has
substantiv	should be reported including (but not limited to):	been reported.
е	geological observations; geophysical survey results;	
exploratio	geochemical survey results; bulk samples – size and	
n data	method of treatment; metallurgical test results; bulk	
	density, groundwater, geotechnical and rock	
	characteristics; potential deleterious or contaminating	
	substances.	
Further	The nature and scale of planned further work (eg tests	Further work planned includes comprehensive
work	for lateral extensions or depth extensions or large-scale	data interpretation, field mapping, and
	step-out drilling). Diagrams clearly highlighting the	exploration drilling.
	areas of possible extensions, including the main	
	geological interpretations and future drilling areas,	
	provided this information is not commercially sensitive.	