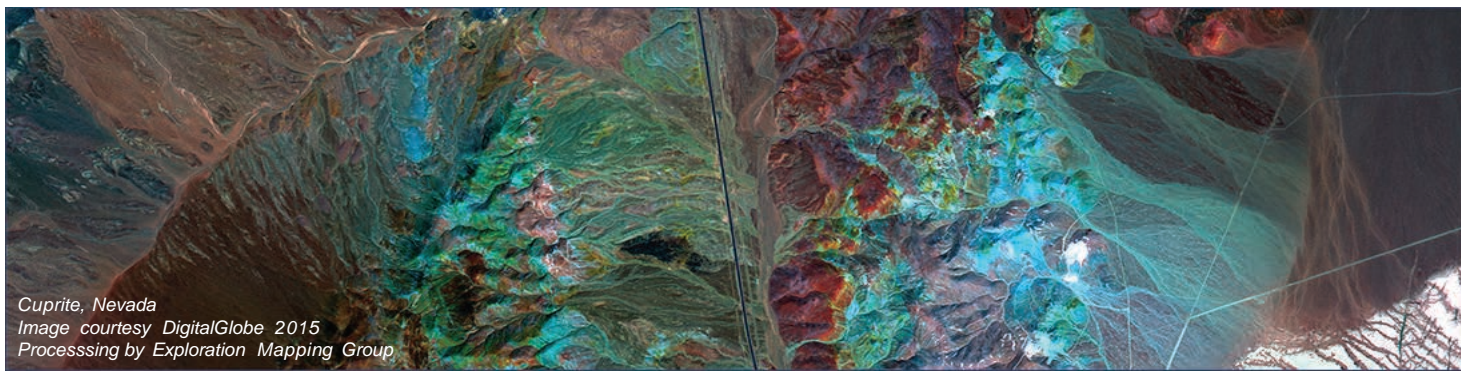


# WorldView-3 Imagery for Exploration and Mining



## Explore the Benefits of WorldView-3

In addition to offering the highest resolution satellite imagery available today, the new WorldView-3 satellite is the first commercial satellite to have seventeen high resolution bands that capture information in the visible, near-infrared and short-wave infrared regions of the electromagnetic spectrum. The satellite provides 31-centimeter panchromatic resolution, five times the detail of the company's nearest competitor, and double the spectral band coverage of DigitalGlobe's previous industry-leading satellite.

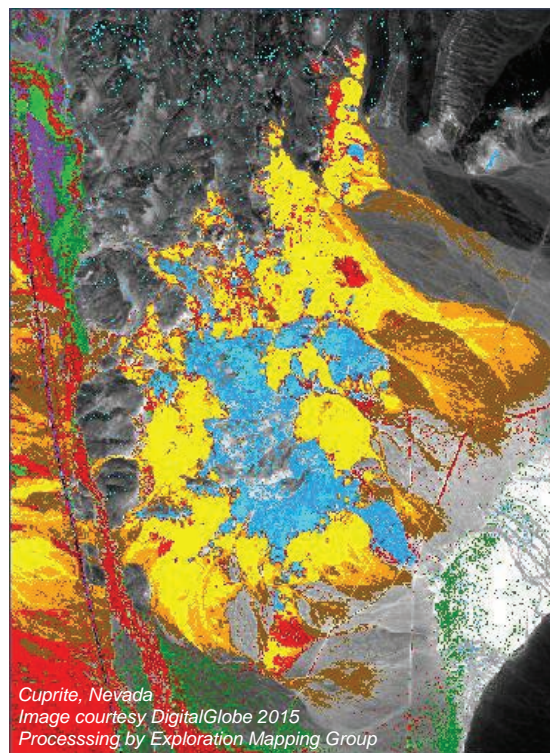
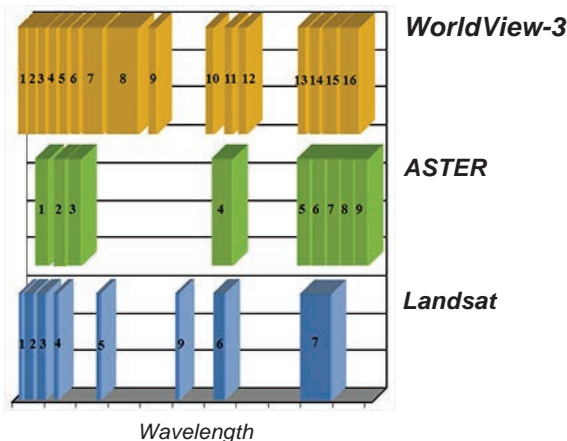
### Features

- » Highest spatial resolution commercially available
  - Panchromatic 31cm
  - Visible & Near-infrared 1.24m
  - Short-wave infrared 7.5m
- » Broadest spectral range commercially available
  - 1 Panchromatic band
  - 8 VNIR bands
  - 8 SWIR bands
  - 12 atmospheric bands
- » Superior atmospheric corrections
- » Highly accurate geocoding
- » Priority satellite tasking for clients of Exploration Mapping Group

### Benefits

- » Apply the latest technology for competitive advantage
- » Map geology, alteration and structures in spectral regions and at scales not possible before
- » Streamline work planning for mapping, surveying, sampling and drilling
- » Monitor regional environmental state
- » Document baseline site and infrastructure conditions
- » Measure site development progress
- » Prepare disaster response and site reclamation plans

Relative VNIR and SWIR spectral coverage of WorldView-3 compared to ASTER and Landsat



Cuprite, Nevada is one of the most iconic remote sensing sites in the world and has been used as a calibration test site for every major resource satellite ever flown. The yellow, green and brown colors represent high concentrations of silica, iron and clay alteration minerals and are just a few of the 30+ mapping classes produced by Exploration Mapping Group for resource exploration.





# WorldView-3 Imagery for Exploration and Mining

## Technical Specifications

Swath Width	At nadir: 13.1 km	
Revisit Frequency (at 40°N Latitude)	1 m GSD: <1.0 day 4.5 days at 20° off-nadir or less	
Orbit	Altitude: 617 km Type: Sun-synchronous, 10:30 am local time Period: 97 minutes for Earth orbit	
Geolocation Accuracy	Predicted <3.5 m CE90 without ground control	
Dynamic Range	11-bits per pixel Pan and MS; 16-bits per pixel SWIR	
Sensor Bands	Panchromatic: 450 - 800 nm	
	<b>8 Visible and Near-Infrared Bands:</b>	
	Coastal: 397 - 454 nm	Red: 626 - 696 nm
	Blue: 445 - 517 nm	Red Edge: 698 - 749 nm
	Green: 507 - 586 nm	Near-IR1: 765 - 899 nm
	Yellow: 580 - 629 nm	Near-IR2: 857 - 1039 nm
	<b>8 SWIR Bands:</b>	
	SWIR-1: 1184 - 1235 nm	SWIR-5: 2137 - 2191 nm
	SWIR-2: 1546 - 1598 nm	SWIR-6: 2174 - 2232 nm
	SWIR-3: 1636 - 1686 nm	SWIR-7: 2228 - 2292 nm
	SWIR-4: 1702 - 1759 nm	SWIR-8: 2285 - 2373 nm
	<b>12 Atmospheric Bands:</b>	
	Desert Clouds: 405 - 420 nm	Water-3: 930 - 965 nm
	Aerosol-1: 459 - 509 nm	NDVI-SWIR: 1220 - 1252 nm
	Green: 525 - 585 nm	Cirrus: 1365 - 1405 nm
	Aerosol-2: 635 - 685 nm	Snow: 1620 - 1680 nm
	Water-1: 845 - 885 nm	Aerosol-1: 2105 - 2245 nm
	Water-2: 897 - 927 nm	Aerosol-2: 2105 - 2245 nm
Sensor Resolution (Ground Sample Distance)	Panchromatic Nadir: 0.31 m	
	20° Off-Nadir: 0.36 m	
	Multispectral Nadir: 1.24 m	
	20° Off-Nadir: 1.38 m	
	SWIR Nadir: 3.70 m	
	20° Off-Nadir: 4.12 m	
	CAVIS Nadir: 30.00 m	

## Processing and Products

- » Basic raw imagery products are corrected for radiometric response between detectors, optical sensor corrections and geometric resampling
- » Atmospheric bands are used to measure atmosphere properties including cloud, aerosol, water vapor, ice and snow to correct imagery for atmospheric effects
- » Environmental products are designed to support Environmental Impact Assessments, Environmental Management Plans and related ecological and land use measurements and change assessments

## Ordering and Deliverables

Contact Exploration Mapping Group to search the archive or task the satellite with a new collection request for your area of interest. Imagery is ordered by the square kilometer with a minimum purchase of 100 sq km per order. Products are delivered by secure ftp and digital media in a variety of geocoded formats compatible with leading commercial GIS and image processing software. All projects include reporting to document the project and all deliverables.



Kalgoorlie Super Pit, Australia  
Image courtesy DigitalGlobe 2015  
Processing by Exploration Mapping Group