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Last update: 26 Oct 2011

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Search text:

<h2>Moapa Valley</h2>	
Basic information	<p>Name: Moapa Valley This is an OFFICIAL meteorite name. Abbreviation: There is no official abbreviation for this meteorite. Observed fall: No Year found: 2004 Country: United States Mass: 699 g</p>
Classification history:	<p>Meteoritical Bulletin: MB 96 (2009) CM1 Recommended: CM1 [explanation]</p> <p>This is 1 of 18 approved meteorites classified as CM1. [show all] Search for other: Carbonaceous chondrites (type 1), CM-CO clan chondrites, CM chondrites, and Carbonaceous chondrites</p>
Comments:	Approved 16 Apr 2009
Writeup	<p>Writeup from MB 96:</p> <div style="border: 1px solid black; padding: 5px;"> <p>Moapa Valley 36°33'26"N, 114°25'37"W Clark County, Nevada, United States Find: September 2004 Carbonaceous chondrite (CM1) History: The specimen was found by Sonny Clary in September, 2004, in the Moapa Valley, southeast of Logandale, Nevada. Physical characteristics: A single dark gray, flattened stone (698.8 g), exhibiting subparallel contraction cracks and partially coated with black, vesicular fusion crust. Petrography (A. Irving and S. Kuehner, <i>UWS</i>): Rounded to ellipsoidal objects (0.05 to 0.7 mm across), exhibiting a preferred orientation of their long axes, are set in a fine-grained, dark matrix containing small clusters of sulfide grains. The larger objects are composed mainly of serpentine minerals and S-bearing phase(s) (probably tochinitite), and in thin section range in color from pale yellow-brown to reddish brown to sepia brown; some such objects have serpentine-rich rims and/or larger, subhedral, dark brown grains composed of serpentine/cronstedtite. Sulfides consist of finely intergrown pyrrhotite and pentlandite. Rare magnetite and calcite are present in the matrix, and the specimen is traversed by narrow open fractures and thin veinlets filled with chalcedony. Geochemistry: Broad-beam EMP analysis of different components gave the</p> </div>

following compositions (in wt%): ellipsoidal objects SiO₂ 31.7–38.4, TiO₂ 0.07–0.25, Al₂O₃ 1.8–7.2, Cr₂O₃ 0.19–0.73, FeO 15.9–26.3, MnO 0.07–0.18, MgO 22.7–28.8, CaO 0.06–0.25, Na₂O 0.04–0.29, SO₃ 0.03–0.87, sum 85.7–87.4; matrix SiO₂ 27.1–28.4, TiO₂ 0.11–0.16, Al₂O₃ 2.7, Cr₂O₃ 0.48–0.57, FeO 34.1–39.7, MnO 0.20–0.25, MgO 14.7–16.5, CaO 0.36–2.9, Na₂O 0.21–0.42, SO₃ 3.9–8.5, sum 89.9–94.1.
Oxygen isotopes (D. Rumble, *CIW*): analyses of two acid-washed whole rock fragments by laser fluorination gave, respectively, δ¹⁸O = 6.29, 6.08‰; δ¹⁷O = 0.93, 0.68‰; Δ¹⁷O = -2.382, -2.519‰.
Classification: Carbonaceous chondrite (CM1). The degree of terrestrial weathering is low.
Specimens: A total of 21 g, one polished thin section and one polished mount are on deposit at UWS. Mr. S. Clary holds the main mass.

Data from: [MB96](#)
 Table 3
 Line 3:



State/Prov/County: Nevada
Date: Sept-2004
Latitude: 36°33'26"N
Longitude: 114°25'37"W
Mass (g): 698.8
Pieces: 1
Class: CM1
Classifier: A. Irving and S. Kuehner,, UWS
Type spec mass (g): 21
Type spec location: UWS
Main mass: S. Clary

Institutions and collections



CIW: Carnegie Insitution Washington, Geophysical Laboratory, 5251 Broad Branch Rd., NW, Washington DC 20015, USA (institutional address)
Clary: Ralph "Sonny" Clary, Las Vegas, NV 89131 , United States; [Website](#) (private address; updated 3 Jan 2010)
UWS: University of Washington, Department of Earth and Space Sciences, Box 351310, Seattle, WA 98195, USA (institutional address)

Catalogs:


References: Published in [Meteoritical Bulletin, no. 96, MAPS 44, 1355-1397 \(2009\)](#)

Find references in NASA ADS: 
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Photos:

Credit	Photos
Photos uploaded by members of the Encyclopedia of Meteorites . (Caution, these are of unknown reliability)	
AJS Cosmic Treasures	
Gerald Armstrong	

Geography:



Coordinates:
Recommended:: (36° 33' 26"N, 114° 25' 37"W)

Statistics:
 This is 1 of 78 approved meteorites from [Nevada, United States](#) (plus 9 unapproved names)
 This is 1 of 1622 approved meteorites from [United States](#) (plus 215 unapproved names) (plus 28 impact craters)
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Also see:	See what others liked This lists the most popular meteorites among people who looked up this meteorite.
Revision history:	Revision history This lists important revisions made to data for this record.

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