A UNIQUE BICOLORED BEDIASITE FROM BRAZOS COUNTY, TEXAS B.Burrer[1] M. E.Zolensky[2] and H. Povenmire[3] [1] 508 Fulton Street, Fredricksburg, TX 78624 brimane@gmail.com [2] JSC-JT111 michael.e.zolensky@nasa.gov [3] Florida Institute of Technology, 1845 Charlesmonte Drive, #E, Indialantic, FL 32903 kaiehall@yahoo.com

Bediasites are North American tektites found in the Upper Eocene, Manning-Wellborn stratums in 10 counties in east central Texas. Their normal color is a very dark green due to the oxides of iron (Fe3O4). Bediasites are noted for their homogeneous color and composition. The 40/39 Argon age of the bediasites is approximately 35.4 my.

There is very little variation in the color of tektites from a strewn field but rare cases have been reported from the Georgia strewn field of light brown and colorless specimens. Unfortunately, no electron microprobe analysis has been reported for these specimens. The Muldoon area of the Texas strewn field has had reported specimens with a much lighter shade of green. There are also light and dark specimens and reports of bicolor tektites from the Moldavite strewn field in central Europe.

In late 2011, veteran Bediasite hunter and researcher, Brian Burrer announced the recovery of an 11.8 gm. bediasite from the area 8km SE of College Station, Brazos County, Texas. Interestingly, this is within 2 kilometers of where the "Star of Sabine", the largest known bediasite with a weight of 200.84 +(30?)gms was found.

This bediasite has an ovaloid shape with dimensions of 29x19x15 mm. There is a deeply etched schlieren sharp dividing line between the two colors, with a 20% section being a very light green, similar to the Muldoon bediasites found in Fayette County, Texas or similar to the Georgia tektites. The remainder is more like the typical bediasites. This specimen was submitted to M. Zolensky of the Lunar Receiving Lab JSC-LPI in Houston for electron microprobe analysis. A thin longitudinal slice was taken off. This specimen appears to be more similar to a Muong Nong-type than a splash form bediasite. There were a series of layers in the darker portion of this bediasite. The lighter end portion seems to be somewhat closer in composition to the Gerorgia tektites. This specimen has higher than expected quantities of Al and K. The average wt. % of SiO2, Al2O3 and FeO are summaried here. All oxides of Fe are expressed as FeO.

Average Weight Percent	SiO2	Al2O3	FeO
1. Average Bediasite	65.12	16.22	6.82
2. Average Georgiaite	80.4	11.4	2.74
3. Muong Nong Bediasite-type (dark)	69.58	18.7	5.63
4. Muong Nong Bediasite -type(light)	74.9	13.3	4.02
5. Muong Nong Georgiaite	80.5	11.7	2.17

This is a unique specimen as no other similar bediasite has been reported in many thousands of bediasite finds.

[1] Povenmire, H. (2003) Tektites – A Cosmic Enigma, Blue Note Publications, Cocoa Beach, FL [2] Wittke, J.H. and Barnes, V.E. (1980) Multicomponent source for a Muong Nong-type Bediasite. 30775-2 *Meteoritics* 23,311 (abstract) [3] Glass, B.P., Wasson, J.T. and Futrell, D.S. (1990) A Layered Moldavite (Jukule) containing Baddeleyite *Proceedings XY LPSC,* Houston, TX.,pp.415-420. [4] Glass, B.P. et al (Povenmire included) (1995) A Muong Nong-type Georgia Tektite *Geochimica et Cosmochimica Acta* Vol. 59 No. 19 pp. 4071-4082.