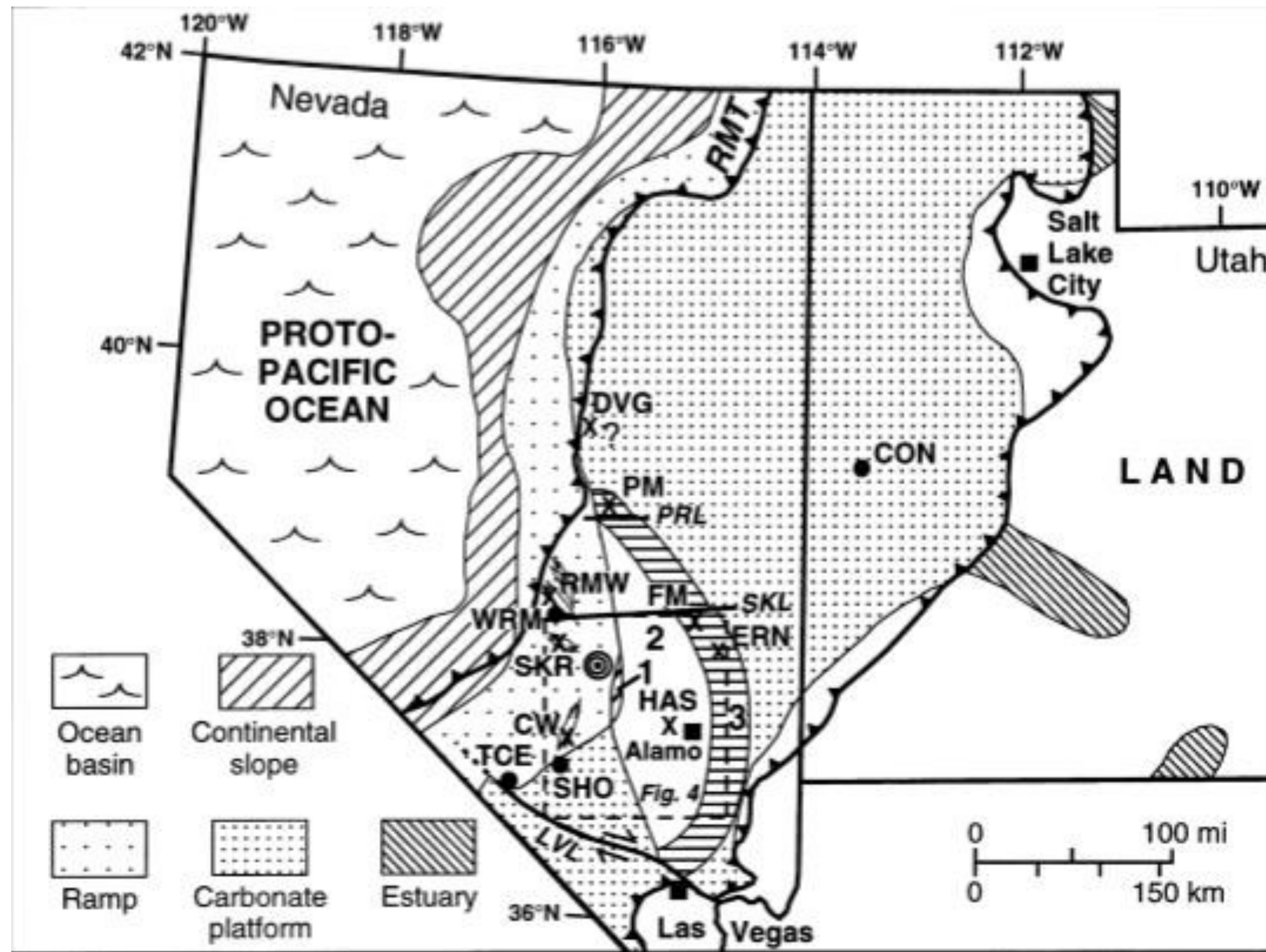
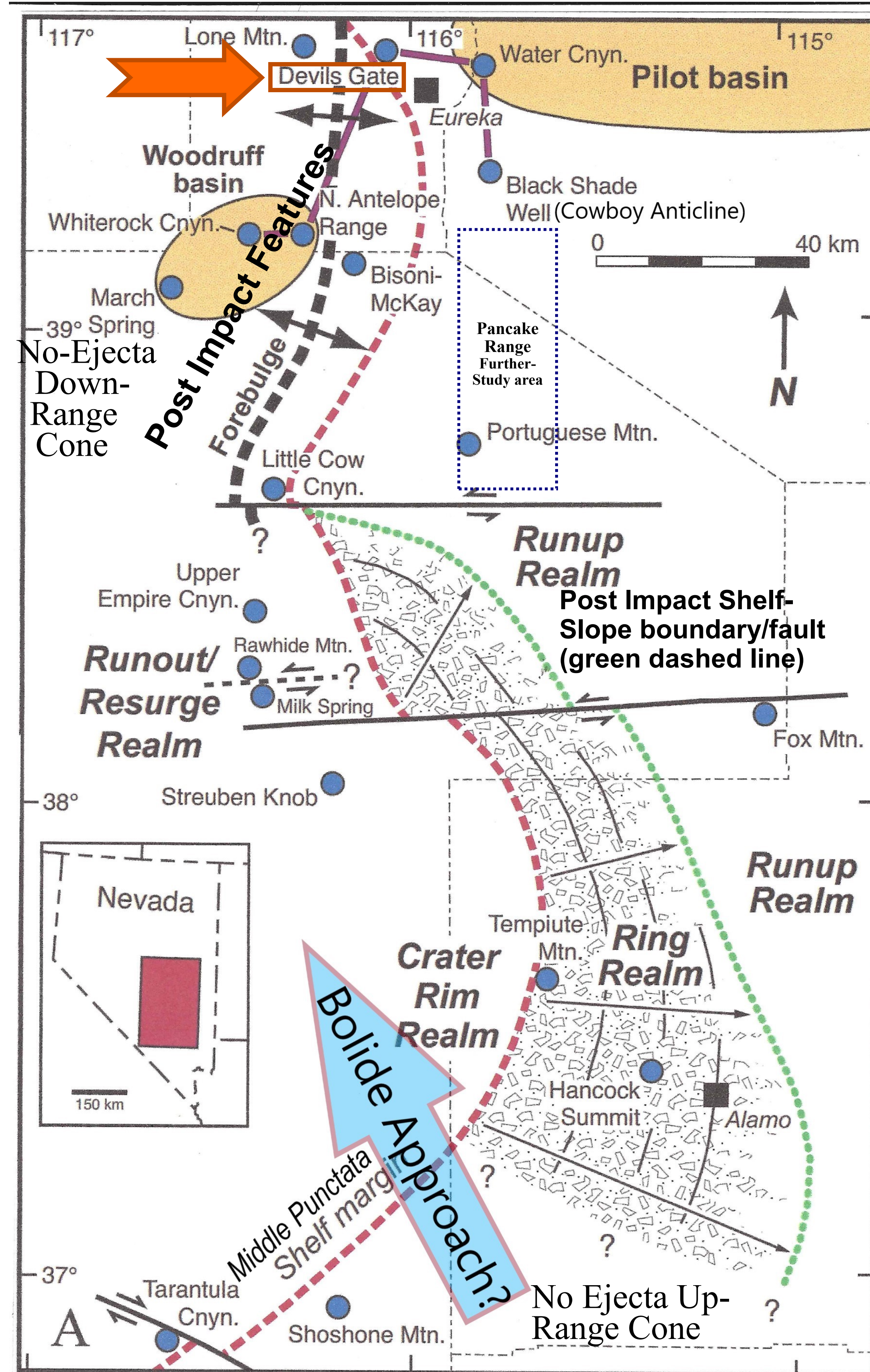


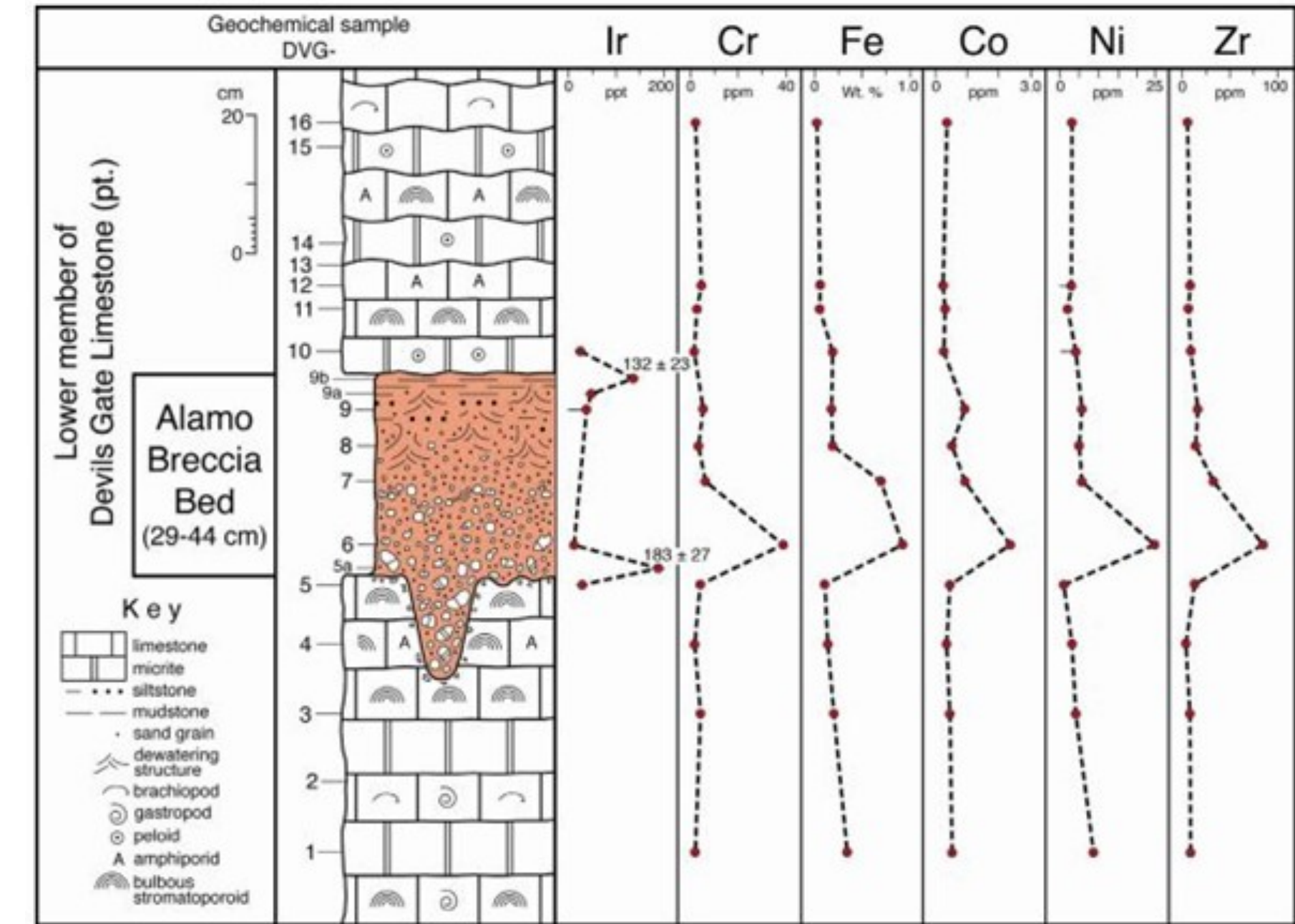
Ejecta Depofacies Boundaries Grossly Suggest an Ellipse — *Butterfly?*



Alamo Location and Depofacies. Devils Gate radial distance should preclude Unit B ejecta preservation. Only Unit A graded tsunamiites are present in the Confusion Range (CON), for example, at about the same distance from the centroid. (Sandberg et al, 2002)



Modified Morrow and Sandberg, 2008, Fig. 6 Pre & Post Impact Features. Added: comets' approach along ellipse axis & additional annotations. A butterfly ejecta distribution may better explain missing ejecta along the ellipse axis outside the crater rim deposits.



Sparse physical evidence of bolide
 Low level Iridium & sideritic metal anomalies (Unit B not sampled)
 Shocked quartz studded w/hematite after pyrite (?source of Iridium)
 Unit B 'scoured' lower contact – assumed channel but appears wedge-shaped.
 Restricted environment changed to open, deeper waters during later shelf collapse
 Morrow and Sandberg, 2006 Fig. 4

Follow-up work to the Alamo Experts: Warme, Pinto, Chamberlain, Sandberg, Morrow, Tapanila, Retzler et al:

1. Map Devils Gate/northern Mahogany Hills
2. Detailed Mag Susceptibility to find where this section fits in.
3. Find more Alamo—in the Pancakes

Just A Few References

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Series	Stage	Conodont Zone and biofacies	Stratigraphic unit and thickness	NV Event	Conodont sample DVG	Unit thickness and lithofacies
Famennian	Lower crenulata	Lower member of Pilot Shale (26 m)	20	13	Argillitic flysch, with 15-cm-thick basal phosphorite lag bed	
	Early crepida	12	13	Turbiditic, planar-bedded, silty, slope limestone		
	Late triangularis	11	32	Turbiditic, silty, slope limestone, displaying common flow rolls and other soft-sediment deformation; partly covered in upper part		
	Early triangularis	10	27	Flow-roll siltstone, interbedded with calcareous mudstone. Conglomeratic tsunamiite in middle and debris-flow limestone at top		
	Linguliformis	9	32	Turbiditic siltstone and debris-flow limestone		
	Late rhenana	8	18-15	Deep-slope, partly chertified siltstone overlying calcarenite lag bed		
	Early rhenana	7	29-32	Moderately deep subtidal micrite and mudstone, with common rhyonchellid brachiopods		
	Jamieae	6	19.5	Moderately deep-slope, nodular biomicrite		
	Unzoned	5	6	Shallow-subtidal subnodular limestone		
	Late hassi	4	7	Planar-bedded lagonal(?) micrite		
Frasnian	Early hassi	3	32.5	Carbonate-platform rocks: amphiporoid and stromatopoid biotomes, interbedded with micrite, biomicrite, and pelmicrite		
	Punctata	2	74	Inner carbonate-platform rocks: stromatopoid biotomes and biotomes, interbedded with gastropod and brachiopod biotomes		
	Transitans	1	31	Very shallow subtidal, nodular wackestone, biomicrite, and pelmicrite, silty at base		

Sandberg et al.'s 1997 DG measured section showing the Alamo Unit A bed at "6?". Casier et al. 2005 first noted Unit B there.

Note: Devils Gate base is covered lacking the "Yellow Slope Forming member" shared with the Guilmette. & contains a deeper water unit (Woodruff FM shale) for the Frasnian-Famennian Kellwasser event, ("8") Whoops!