

**Selected Maps and Cross Sections  
from Prior Geologic Investigations (Exhibits H-1 through H-6, as  
provided from EPA – September 25, 2005)**

**Description**

Exhibit H-1 – Figure 4-2 Location Map of Exploratory Excavations

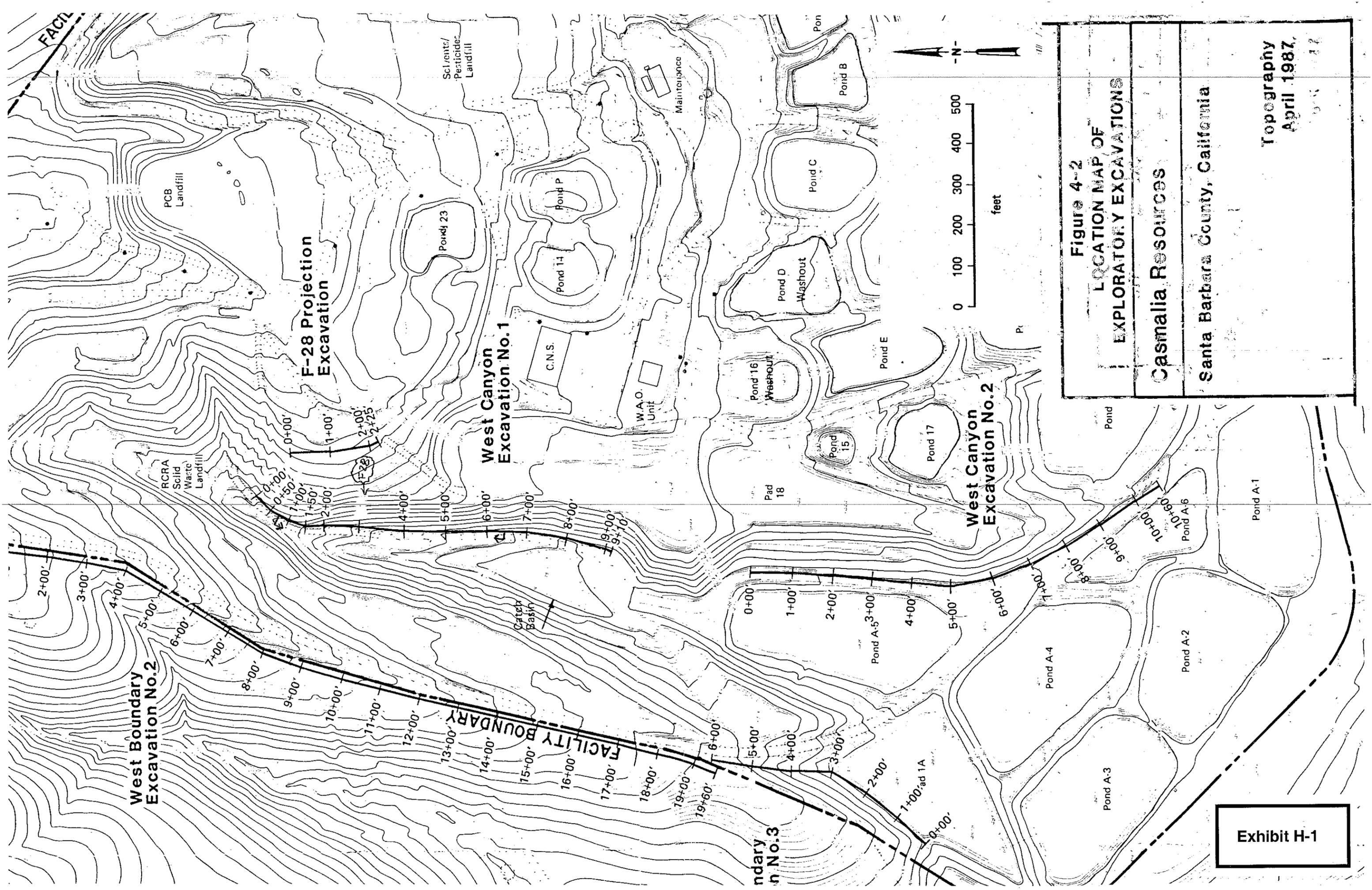
Exhibit H-2 – Figure 4-11 Schematic Log of West Canyon Excavations 1 and 2

Exhibit H-3 – Figure 4-4 Detailed Log of Fault F-26 West Canyon

Exhibit H-4 – Figure 4-3 Schematic Sketch of Fault F-28 West Canyon

Exhibit H-5 – Figure D-4.2 Field Log of West Canyon Excavation No. 1 STA.3 + 00 TO 6 + 00

Exhibit H-6 – Figure 4-2 Location Map of Exploratory Excavations



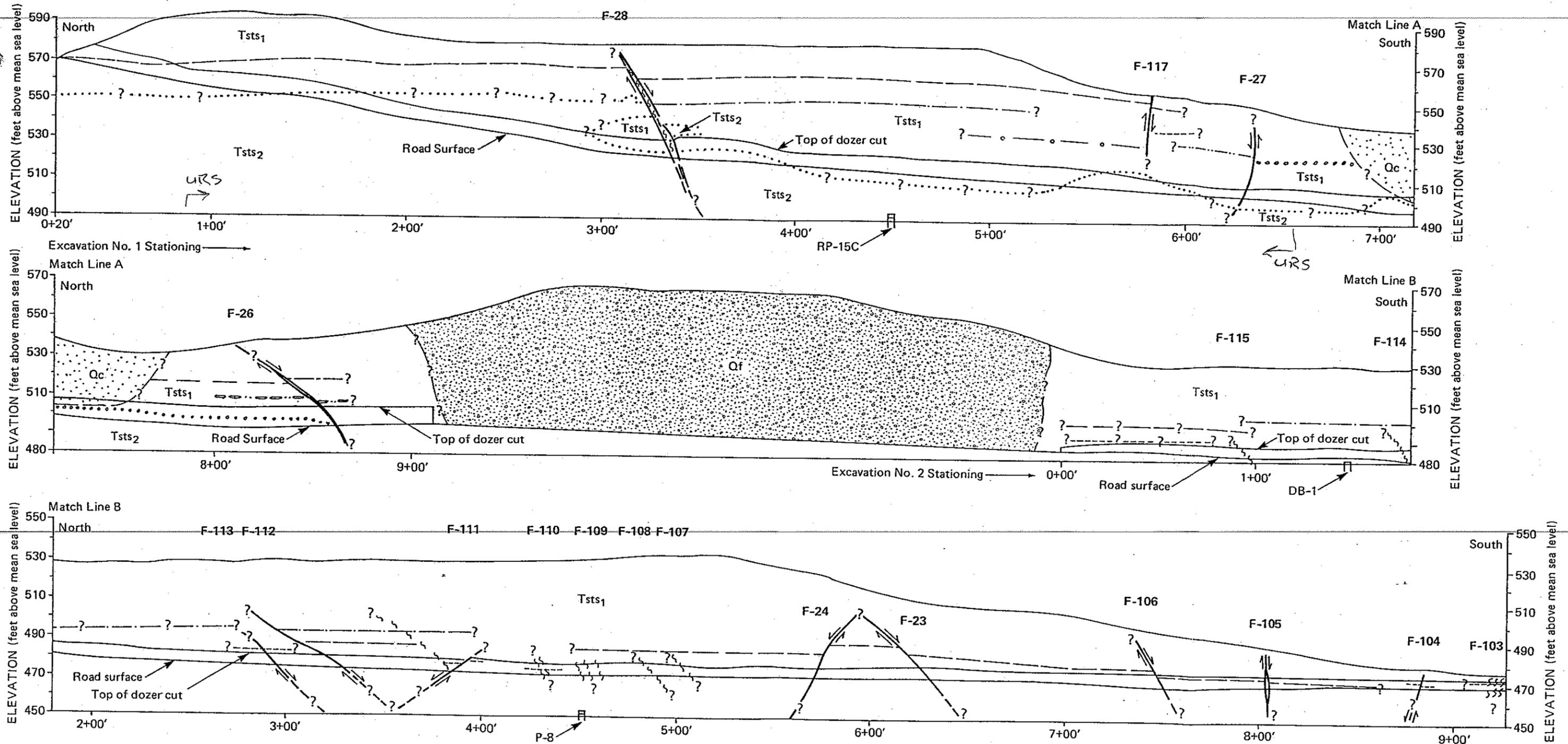
**Figure 4-2**  
**LOCATION MAP OF**  
**EXPLORATORY EXCAVATIONS**

**Casimira Resources**

**Santa Barbara County, California**

**Topography**  
**April 1987**

**Exhibit H-1**



**EXPLANATION**

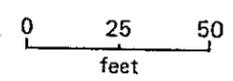
- Fault, dashed where inferred, queried where uncertain.
- Shear zone, queried where uncertain.
- Orange concretionary bed, 0.1' to 2.0' thick.
- Resistant claystone beds that form distinct side-hill ridges.

Contact between brown, "weathered" claystone and blue-grey, "unweathered" claystone.

**GEOLOGIC UNITS:**

- Artificial fill
- Colluvium
- Brown, "weathered", Todos Santos claystone member
- Blue-grey, "unweathered", Todos Santos claystone member

Approximate well location

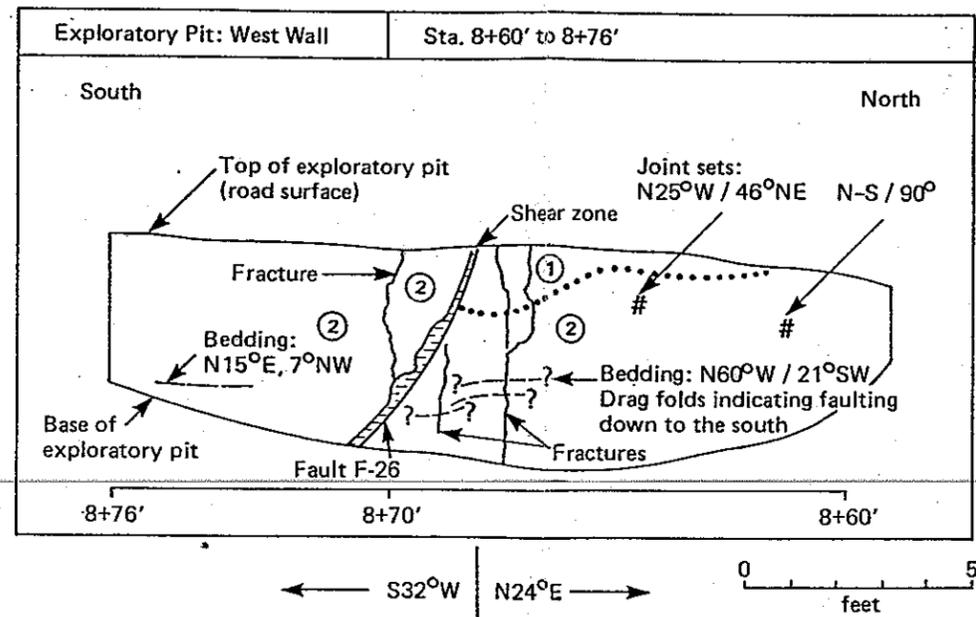
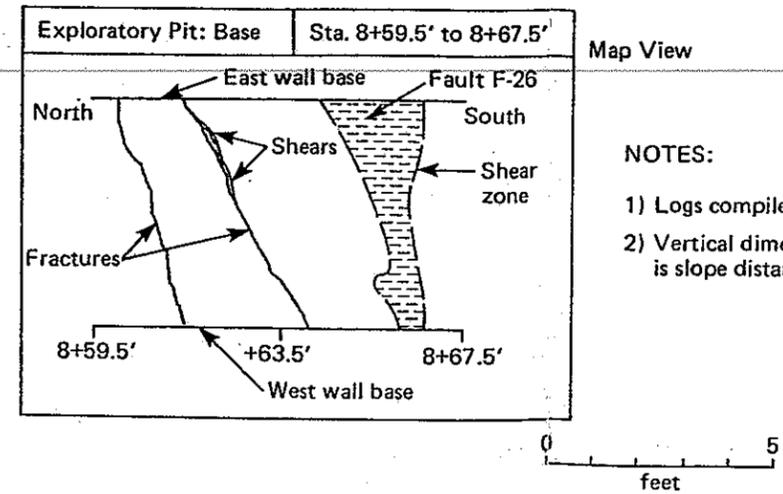
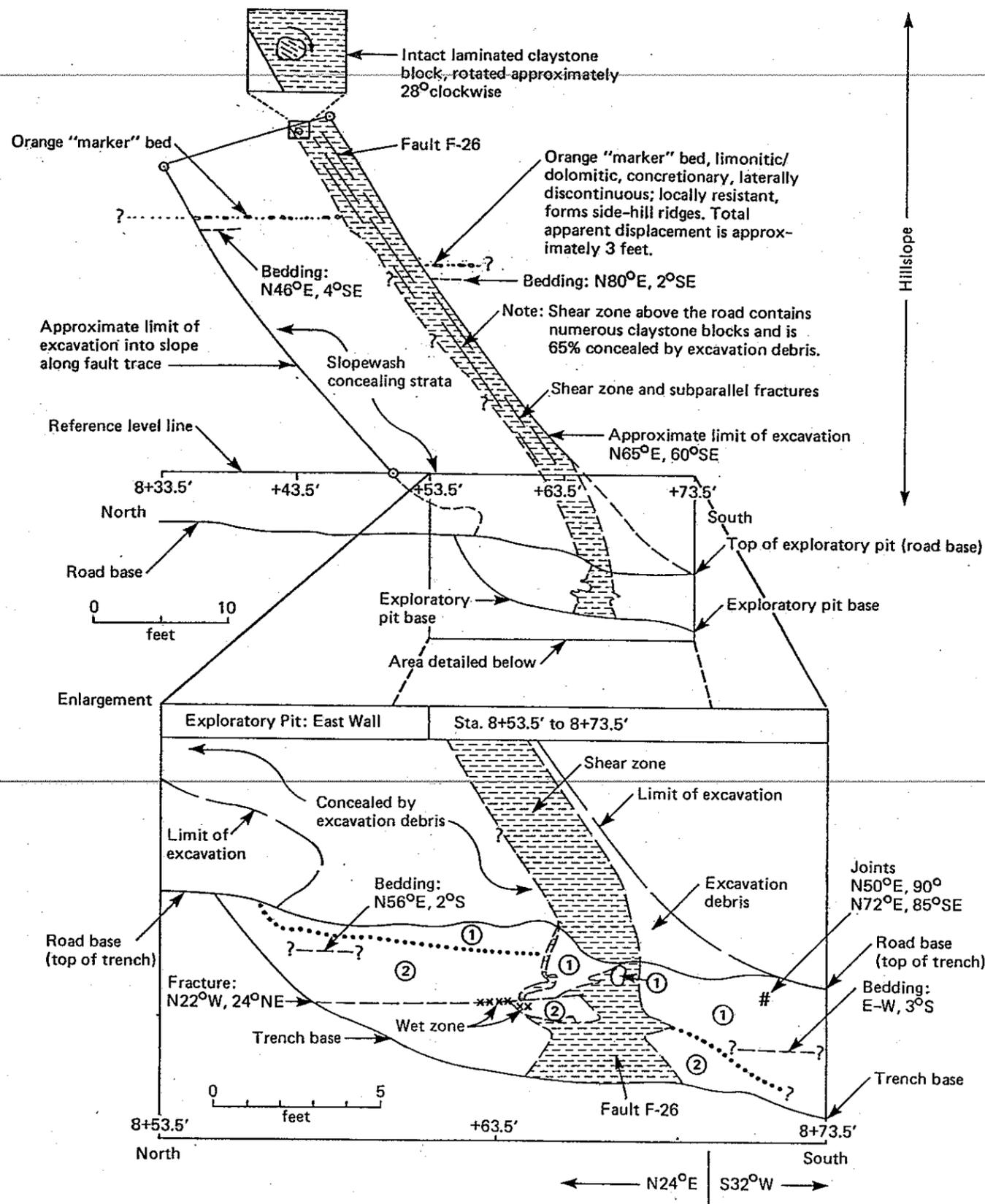


**Notes:**

1. Faults and shears plotted without vertical exaggeration.
2. Fault and shear numbers correspond to those in Table 4-2.

**Exhibit H-2**

Project No. 90395N	Casmalia Resources	<b>SCHEMATIC LOG OF WEST CANYON EXCAVATIONS 1 AND 2</b>	Figure 4-11
<b>Woodward-Clyde Consultants</b>			



**EXPLANATION**

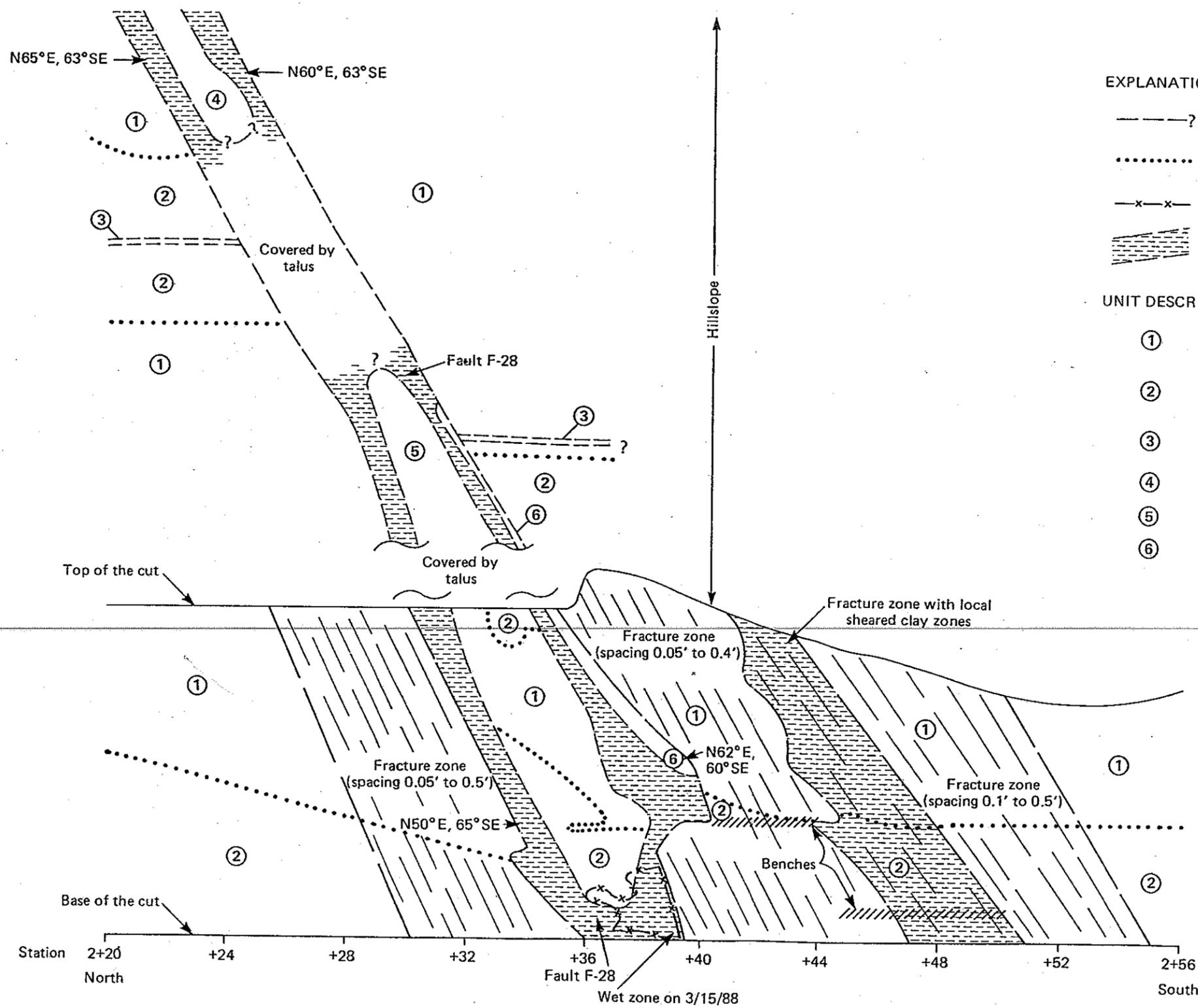
- ..... Approximate contact between unweathered, blue-grey claystone and weathered, brown claystone
- Shear zone, crushed claystone and clay, widely scattered intact blocks, slickensides common

**UNIT DESCRIPTION:**

- ① Brown claystone, slightly to highly fractured, moderately to highly weathered, Fe-stains common
- ② Blue-grey claystone, slightly fractured, unweathered to slightly weathered, massive to locally laminated

**Exhibit H-3**

Project No. 90395N	Casmalia Resources	DETAILED LOG OF FAULT F-26 WEST CANYON	Figure 4-4
<b>Woodward-Clyde Consultants</b>			



**EXPLANATION**

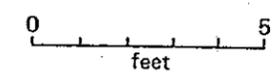
- — — ? Approximate stratigraphic contact, queried where uncertain
- ..... Approximate contact between unweathered blue-grey claystone and weathered brown claystone
- x—x— Approximate limit of wet zone on 3/15/88
- Shear zone, brown to dark brown crushed claystone and clay with local gypsum sheets and Fe staining; slickensides common

**UNIT DESCRIPTION:**

- ① Pale brown claystone, laminated, highly fractured, highly weathered, Fe-stained
- ② Blue-grey claystone, locally laminated to massive, slightly to moderately fractured, unweathered to moderately weathered
- ③ Grey claystone, hard, slightly weathered with orange surface stains, forms distinct resistant rib in hillside
- ④ Brown claystone block, highly fractured
- ⑤ Blue-grey claystone block, moderately fractured
- ⑥ Blue-grey gypsum cemented breccia; very hard

**NOTES:**

- 1) Approximately 6 feet of apparent offset measured on Unit 3.
- 2) Log was compiled on 3/16/88.
- 3) Vertical scale approximated from slope distance (slope = 40%).

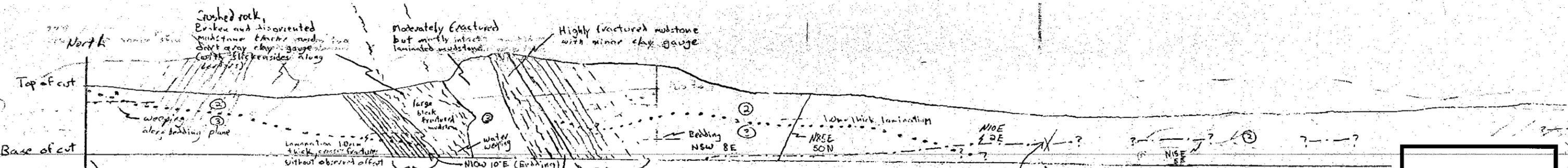
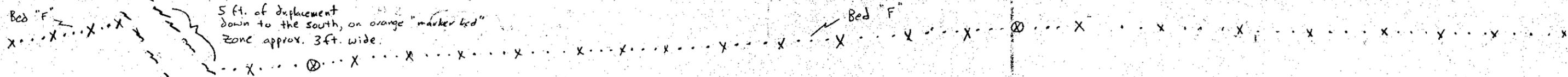


**Exhibit H-4**

Project No. 90395N	Casmalia Resources	SCHEMATIC SKETCH OF FAULT F-28 WEST CANYON	Figure 4-3
<b>Woodward-Clyde Consultants</b>			

# Fault: 28

S 5° W



Elev. 524.29'

Elev. 516.47'

Exhibit H-5

Zone of 12 prominent fractures: N50E 80°SE (water weeping) spaced - 0.15' to 0.5' apart. Filling, planarity, roughness (as before). Damp; water pathway.

Zone of 10 to 20 prominent fractures: N60E 70°SE spacing (same as the north side).

Slightly damp to dry; damp along fractures

Fault: N60E 63°SE (Northern margin)  
 Zone N65E 63°SE (Southern margin)  
 spacing, aperture, infilling (as described and shown above)  
 planar to locally irregular, smooth, some slickensides.  
 Note: Feature is damp; rock is relatively dry to the south of and wet and weeping to the north. Feature represents a potential water barrier.

Distinctive 0.3' thick

⊗ = Ro

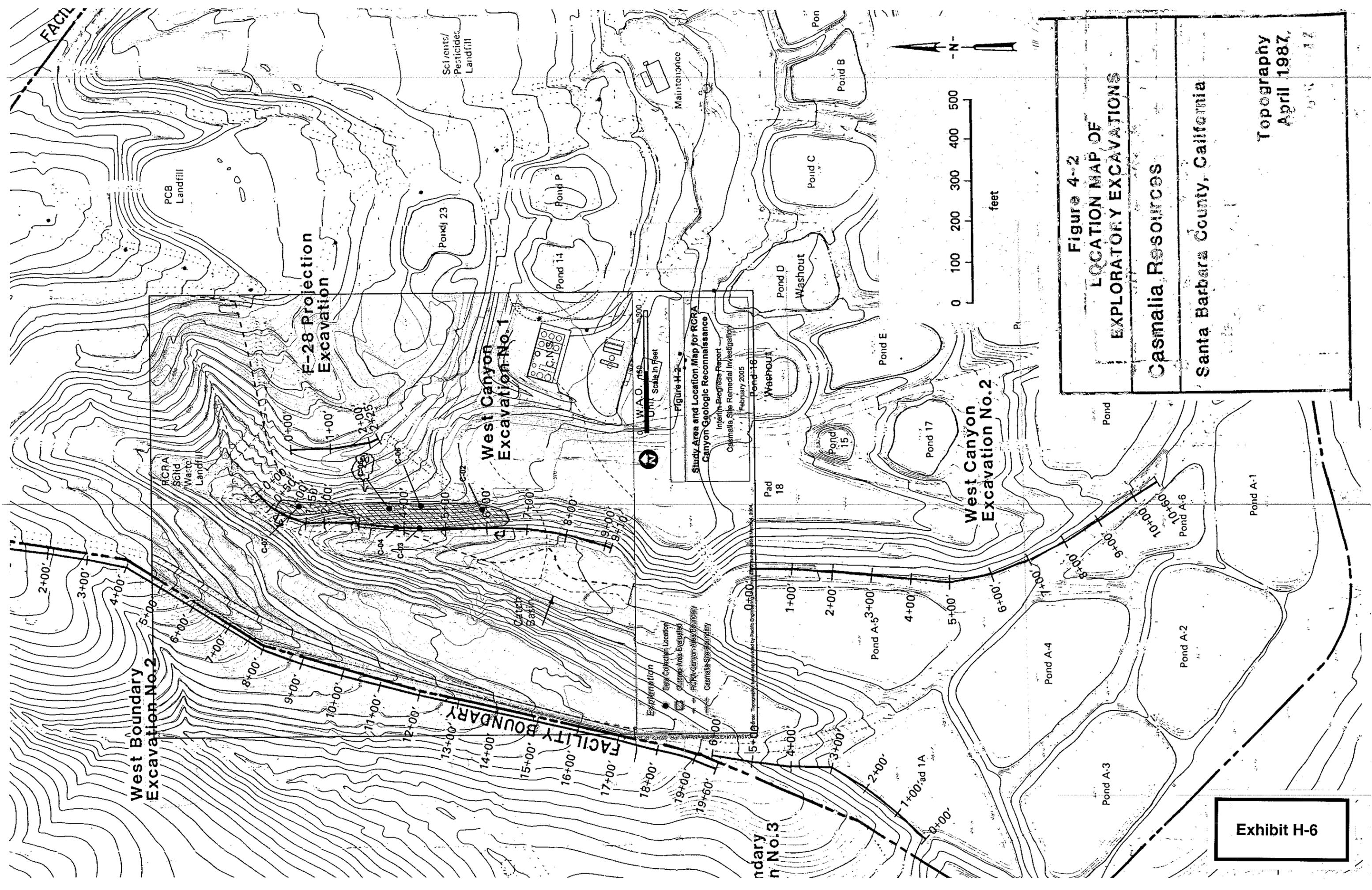
**Figure D-4.2**  
**FIELD LOG OF WEST CANYON**  
**EXCAVATION NO. 1**  
**STA. 3+00 TO 6+00**

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**Casmalia Resources**

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**Santa Barbara County, California**



**Figure 4-2**  
**LOCATION MAP OF**  
**EXPLORATORY EXCAVATIONS**

**Casmalia Resources**  
**Santa Barbara County, California**

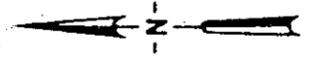
**Topography**  
**April 1987**

**Exhibit H-6**

**Figure H-2**  
**Study Area and Location Map for RCRA**  
**Canyon Geologic Reconnaissance**  
 Interim Progress Report  
 Casmalia Site Remedial Investigation  
 February 2005

W.A.O. 150  
 Unit Scale in Feet

0 100 200 300 400 500  
 feet



**West Boundary**  
**Excavation No. 2**

**F-28 Projection**  
**Excavation**

**West Canyon**  
**Excavation No. 1**

**West Canyon**  
**Excavation No. 2**

**FACILITY BOUNDARY**

**Boundary**  
**Excavation No. 3**

RCRA  
 Solid  
 Waste  
 Landfill

PCB  
 Landfill

Scientists/  
 Pesticides  
 Landfill

Maintenance

Examination

Drill Collection Location

Geologic Area Elevations

RCRA Canyon West Boundary

Casmalia Site Boundary

Pad 18

Washout

Pond B

Pond C

Pond D

Pond E

Pond 15

Pond 17

Pond 18

Pond 19

Pond 20

Pond 21

Pond 22

Pond 23

Pond 24

Pond 25

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