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April 8, 2014  
J.N. 13-305

Ms. Nancy Ferguson  
**THE ALTUM GROUP**  
73-710 Fred Waring Drive, Suite 219  
Palm Desert, CA 92260

**Subject: Revised Fault Rupture Hazard Investigation, Proposed Ling Yen Mountain Temple Site, Located at 13938 DeCliff Drive Generally Northeast of the Intersection of DeCliff Drive and Wardman Bullock Road, Etiwanda Area, San Bernardino County, California.**

Dear Ms. Ferguson:

This report presents the results of our fault investigation to aid in the land-planning for proposed improvements to the Ling Yen Mountain Temple Site in Etiwanda, San Bernardino County, California. This work was initiated on the results of our Geo-constraints study (Petra 2013a) and the current proposed land plan, and was done to evaluate the presence or absence of active faulting at the site. Active faults associated with the Cucamonga fault zone have been identified at the site. Previous investigations (summarized below) did not evaluate the entire development area that is currently being considered and the reports that were done were not approved by the County of San Bernardino Geologist.

The site is located within a State of California Alquist-Priolo Earthquake Fault Zone (APEFZ). The APEFZ requires that buildings for human occupancy not be built over known active faults. Within an APEFZ, geologic studies are conducted prior to planning or construction of habitable structures to avoid placing such development over faults that may potentially produce ground rupture. Additionally, habitable structures are “set back” a reasonable distance from active fault traces, consistent with the level of site-specific investigations and local building codes.

### **SITE LOCATION AND PROJECT DESCRIPTION**

We understand that the area to be developed is approximately 28 acres generally bounded by the property line on the west, the power line easement on the south, the property line on the east and Dawnridge Drive (unpaved internal road) on the north. The approximate location of the site is shown on Figure 1. Vacant undeveloped land bounds the site to the north and east.

Proposed site development includes prayer halls, living facilities, and associated buildings for education dining/kitchen, administration and support facilities, and various infrastructure, i.e. underground utilities, drainage facilities and streets. All building structures and site improvements will be constructed in accordance with applicable building codes.

### **PREVIOUS INVESTIGATIONS**

Investigations have been conducted by others at the site to determine the presence or absence of faulting at the site. These studies are summarized below.

#### Craig Smith, Civil Engineering and Geology (1983)

The Craig Smith report was prepared in 1983 and to our knowledge was not reviewed or approved by the San Bernardino County Geologist. That investigation included geologic mapping and excavation and logging of six trenches. The labeling of the trenches is unclear, but it appears that a fault was identified in Trench 3 as a single discrete feature and a building setback was established from that fault. The report did not indicate if the fault was surveyed in by a professional land surveyor.

#### Kleinfelder, Inc (1997a and 1997b)

In 1997, Kleinfelder, Inc. issued a letter (1997a) summarizing the known geologic literature of the site including the Craig Smith report. During their study, the San Bernardino County Geologist (Mr. Wes Reeder) was contacted who commented that recent understanding of the Cucamonga Fault and improvements to the standard of practice in conducting active fault investigations will require a new project specific investigation to be conducted. Mr. Reeder's comment on the Kleinfelder letter (1997a) was through an interoffice memo. Petra did not have access to that interoffice memo. Kleinfelder (1997b) responded to Mr. Reeder's comment and confirmed that a new investigation that includes trenching is needed.

Kaup Associates (1997/1998)

In 1997, Kaup Associates investigated the site through geologic mapping, excavation and logging of 2 trenches. They observed active faulting and developed building setback zones. The geologic map showing the location of the trenches and building setback zones was not available for our review. Geologic logging of trenches in the Kaup report (1998a) indicates that active faulting was observed as a zone of individual faults extending over 10's of feet. The San Bernardino County Geologist (Mr. Wes Reeder) commented on the Kaup's report on December 17<sup>th</sup> 1998. Kaup (1998b) responded to those comments after which Mr. Reeder provided an additional comment letter. Conversations with County Land Use Services Department revealed that a response to the second comment letter was not in the file, and the report has not been approved.

Kaup (1997a) reported that the locations of the observed faults were surveyed in by Allard Engineering. Petra contacted Allard and the information is no longer in their files due to passage of time.

The Building Restriction Proposed by Kaup was presented on the EGL (2006) report, discussed below. The Kaup Building restriction zone is plotted on Plate 1 of this report and, due to the more extensive trenching discussed in this report, is fully enveloped by the Building restriction zone proposed by Petra.

Environmental Geotechnical Laboratory, Inc. (2006)

In 2006, EGL conducted an active fault investigation for LYMT and found no faults. The plate showing the locations of the trenches excavated was available for our review. Conversations with the County Geologist indicate that the report was not reviewed or approved.

Miscellaneous Information

Petra was also provided a map prepared by Allard Engineering, dated March 7, 1997 showing a building setback zone. The map, which was prepared for a conditional use permit, does not report the source for the location of the building setback zone but appears to reflect the setback identified in the Craig Smith report.

The Southern California Earthquake Center (SCEC) reports the Cucamonga Fault has ruptured in the very recent Holocene time and the interval between major ruptures in on the order of 600 to 700 years (<http://www.data.scec.org/significant/cucamonga.html>).

Morton and Matti (1987) mapped faults though the LYMT site. The locations of thos faults are presented on Plate 1.

## **SCOPE OF WORK**

This investigation was specifically to assess both the presence or absence of faulting and assesses the risk of ground surface rupture across the subject property. The conclusions and recommendations in this report will be to determine project feasibility and final design, so that structures for human occupancy are not constructed over active faults. The State of California currently defines an “active fault” as one that has had surface displacement within Holocene time, about the last 11,000 years (Bryant and Hart, 2007). This investigation followed the California Geological Survey guidelines for evaluating the hazards of surface fault rupture (CGS, 2002).

The scope of services for this investigation included the following:

- Reviewing pertinent technical literature, geologic maps and aerial photographs relative to the site geology and potential location of faults (see References).
- Surface reconnaissance and observation of the general site geology and geomorphologic features particularly expressive of potential active faults.
- Excavating, cleaning and geologic logging of five exploratory fault trenches totaling approximately 2200 linear feet to document fault presence or absence, estimated age and the continuity of unbroken sediments. The trenches were logged and interpreted under the direction of two State of California Certified Engineering Geologists including the undersigned. The trenches were visited and reviewed during the investigation by the County of San Bernardino Geologist who will also review this report. The trenches were also observed, by invitation, by Dr. Douglas Morton (United States Geological Survey, retired), Janis Hernandez, (California Geological Survey), and Dr Katherine Kendrick (United States Geological Survey).

The trenches were excavated to depths on the order of 15 feet below ground surface with two intermediate ~5-foot wide benches at 5-foot intervals for safety.

- Organizing and interpreting appropriate geologic data.
- Preparing this Fault Rupture Hazard Investigation report and related figures and trench logs.

## **FINDINGS**

### **Regional Geology**

The site is located at the southern edge of the eastern Transverse Ranges geomorphic province of southern California. The Transverse Ranges are so named due to divergence from the northwesterly structural grain of southern California imprinted by the San Andreas Fault System.

### **Local Geology**

The area planned for development is underlain by Pleistocene- to Holocene-aged topsoil, alluvium, and debris flows that is typically sandy with abundant cobble- - sized materials with occasional boulder-sized clasts. Based on the observations made during this investigation, the sediments are loose in the upper few feet. The in-place density of the alluvial/debris flow materials increases with depth as a result of consolidation by age and cementation.

Proterozoic-aged metamorphic rocks occur in the hills above the project. The pre-Tertiary gneissic rocks are located at the northern portion of the site outside the area planned for development. These gneissic rocks are moderately to slightly weathered and are characteristically hard.

Descriptions of the geologic units encountered in the trenches are presented below.

In-Fill/Artificial fill (IF/Af): Gravelly SAND ( SP), pale brown (10YR 6/3), loose, dry, fine to coarse, fine to coarse angular gravel, scattered fine to coarse angular cobbles

Colluvium 1 (Qcol 1): Silty SAND (SM), dark brown (7.5 YR 4/4), loose, dry, fine to coarse, abundant fine to coarse angular gravel, abundant voids to 1/8" diameter

Colluvium 2 (Qcol 2): Gravelly SAND (SP) to Sandy Gravel (GP), gray brown (10YR 5/2), loose, dry, fine to coarse sand with abundant silt, fine to coarse angular gravel, matrix supported, scattered fine to coarse angular gravel and small boulders, metamorphic and granitic clasts, moderate voids to 1/8" diameter

Debris Flow 1 (Qdf1): Sandy GRAVEL (GP), yellow brown (10YR 5/4), fine to coarse angular gravel, silty to clayey fine to coarse sand, matrix supported, scattered fine angular cobbles to small boulders, crudely bedded, scattered clast supported gravel beds, metamorphic and granitic clasts, abundant voids to 1/8" diameter in upper 6 feet, moderate translocated clay in the upper 3 – 4 feet

Debris Flow 2 (Qdf2): Gravelly SAND (SP), brownish yellow (10YR 6/6) to yellow (10YR 7/6), dense, dry, fine to coarse, fine to coarse angular gravel, abundant fine angular cobbles to medium boulders, rare boulders to 10' diameter boulders, metamorphic and granitic clasts, moderate voids to 1/16" diameter, abundant silt translocation and siltrans, up to stage 5 grussification of clasts

Alluvial Fan (Qf): Sandy GRAVEL (GP), brownish gray (10YR 6/2), fine to coarse angular gravel, fine to coarse sand, matrix supported, abundant fine to coarse angular cobbles, minor small angular boulders, rare boulders to 6' diameter, crudely bedded, moderate imbricated clasts, metamorphic and granitic clasts

### **Groundwater**

Groundwater has been reported (Fife, et.al., 1974) to be on the order of 500 feet below the ground surface.

### **Geological and Geotechnical Hazards**

The following section discusses various potential geologic hazards that are expected to affect the proposed project site. The issues addressed include risks associated with active faults, strong seismic ground shaking, seismic-related ground failure such as liquefaction, landslides, and subsidence/settlement.

### **Seismic Shaking**

The site is located within an active tectonic area with several significant faults capable of producing strong earthquakes. The closest known active fault is the east-west trending Cucamonga Fault, located within the northern portion of the site. Other important regional faults include the San Jacinto Fault Zone, located approximately 4½ miles northeast of the site, and the San Andreas Fault, located approximately 9 miles to the northeast. The Mojave Desert area contains several northwest trending right lateral strike-slip faults that could also affect the site area, such as the Johnson Valley, Eureka Peak and Burnt Mountain Faults, which ruptured during the 1992 Landers Earthquake.

The California Geological Survey provides a website to give probabilistic ground motions (10 percent probability of being exceeded in 50 years) are expressed as a fraction of the acceleration due to gravity (g). Based on the Latitude and Longitude at the site, the ground motions anticipated to be experienced at the site are estimated to be 0.83g.

### **Secondary Effects of Seismic Activities**

Secondary effects of seismic activities normally considered as possible hazards to a site include liquefaction, several types of ground failure, and earthquake-induced flooding. The potential for liquefaction at the site is likely to be negligible due to the absence of shallow groundwater and in-place density and age of site subsoils.

Various general types of ground failures, which might occur as a consequence of severe ground shaking at the site, include landsliding, ground subsidence, and ground lurching. The probability of occurrence of each type of ground failure depends on the severity of the earthquake, distance from faults, topography,

subsoils and groundwater conditions, in addition to other factors. Based on the site conditions and gently sloping topography, the above secondary effects of seismic activity are considered unlikely at the site.

Seismically induced flooding that might be considered a potential hazard to a site normally includes flooding due to tsunami or seiche (i.e., a wave-like oscillation of the surface of water in an enclosed basin that may be initiated by a strong earthquake) or failure of a major reservoir or retention structure upstream of the site. Because of the inland location of the site, flooding due to a seismic activity is also considered non-existent at the site.

### **Landslides and Slope Instability**

No landslides are known to exist on the site. The shear strength of the granitic and metamorphic rock in this area is likely to be strong and not conducive to rotational type landslides. More likely, the common type of slope failure in northern mountainous part of the site are topples and rock fall, particularly when induced by strong earthquakes. For the majority of the site, where there are relatively gentle slope gradients, the potential for landslide is negligible.

### **Erosion and Debris Flow**

The potential for erosion and debris flow occurrence is high within the active drainage of the site. Debris flows will occur during the sporadic, but strong torrential rains that occur in the site area. Mitigation for debris flow, if needed, will be developed during the preliminary geotechnical investigation and will be based on the final land plan.

### **Ground Subsidence**

Based on the coarse alluvium at the site, it is unlikely that the area is susceptible to subsidence due to withdrawal of groundwater. Future geotechnical studies will be required to evaluate potential subsidence, which may more likely be related to seismic settlement, or consolidation/hydroconsolidation of the surficial soils.

### **Coarse Alluvium, Oversize Rocks and Hard Bedrock**

Our investigation encountered younger and older alluvium at the site that were characteristically coarse. Cobble-sized clasts (6 to 12 inches in diameter) are common. Boulders from 1 to over 6 feet in diameter are also present, and generally increase toward the north. Hard Metamorphic and gneissic rocks are located at the northern part of the site and north of the area slated for development.

### **Expansive Soils**

Expansive soils generally result from the activity of certain clay minerals that expand in volume with increasing moisture content and shrink in volume with decreasing moisture content. Although the majority of the site is underlain by sandy alluvium, potentially expansive clayey materials were observed in one of the trenches excavated for the active fault investigations.

### **Deep Removal and Recompaction of Unsuitable Soils**

The area planned for development is underlain by sandy soils with abundant cobble- to boulder- sized materials. Based on the previous investigation removals may be on the order of a few feet. Although the large, rocky material will require special handling, the soils are expected to be suitable for use as foundation support when properly compacted. In addition, reinforced foundation recommendations may be required and will be addressed in the preliminary geotechnical investigation report.

The trenches have been backfilled and the backfilling has been reported on in the February 21, 2014 report by Earth Systems Southwest.

## **SITE-SPECIFIC FINDINGS**

### **Aerial Photograph Analysis**

Aerial photographs were reviewed to assess the recent geomorphology and potentially fault-related lineaments. Based on the aerial photos reviewed, see references, Lineaments are restricted to the northern part of the study area. Lineaments in the alluvial fan/debris flow deposits were not noted. We also did not note the buried fault reported in the Morton and Matti (2001) report.

### **Fault Trench Findings**

Faulting was observed in trenched ST-1, ST-3, ST-4, and ST-5 (Plate 1). The faults observed were restricted to the northern portion of the site and had both northwest and northeast orientations. The faults were staked at the top of trench (eastern trench wall) and were surveyed in by a State of California Licensed Professional Surveyor. Survey Coordinates are based on North American Datum 83, Zone 5, California State Plane. The surveyed locations are presented below.

**SURVEYED FAULT LOCATIONS**

Survey Point	Northing	Easting	Elevation	Trench #, Station and Fault Orientation
1946	1884224	6712787	1871.752	ST-1 1+67 N52E 14NW
1952	1884339	6712814	1890.313	ST-1 0+47 N52W 38NE
1960	1884303	6712999	1901.318	ST-3 0+14 N67E 56NW
1961	1884148	6712961	1877.751	ST-3 1+75 N62E 26NW
1973	1884135	6713218	1892.86	ST-4 0+91 N62E 42NW
1974	1884178	6713221	1897.569	ST-4 0+47 N45E 25NW
1975	1884185	6713222	1899.109	ST-4 0+40 N70W 26NE
2024	1884159	6713075	1887.761	ST-5 0+85 N66E54W
2025	1884128	6713072	1884.227	ST-5 1+16 E-W50N
2026	1884125	6713072	1883.676	ST-5 1+20N44E36NW
2027	1884119	6713072	1883.185	ST-5 1+25N50E56NW

Based on trench exposures and as documented on the logs (Plates 3 through 38), the site is underlain by two units, older alluvium and debris flow deposits. Conversations with Dr. Katherine Kendrick during her field visit On September 10,2013, indicated that the site soils are likely on the order of a few 10's of thousands of years old to within fairly close to the surface and that determining if the Holocene boundary was present would be difficult to impossible. Evidence for this includes grussified igneous clasts, translocated silts, moderate cementation, and moderate dissection of the surfaces (Morton and Matti, 1987). Accordingly, the faults observed are considered potentially active at a minimum which in this case requires treatment as active fault since the Holocene boundary is not present or discernable thus requiring building setbacks.

A number of features in the trenches were initially identified as potential faults but further investigation found that the features were either discontinuous between trenches or did not extend to the full depth of the trench indicating that they are not related to faulting and are better explained as ground-cracking features likely explained by strong ground motion from the adjacent Cucamonga fault or gravity features (lateral motions) during a period when the western area was much wetter (for example prior to about 15,000 years ago).

### **CONCLUSIONS AND RECOMMENDATIONS**

It is our opinion, based on the results of our trenching investigation, that active/potentially active faulting occurs at the site at the locations presented on Plate 1. Accordingly, building restriction/setback zones should be established. The building restriction/setback zones are shown on Plate 1 and described below.

Southern Building Setback - There is a water line owned and operated by the Cucamonga Valley Water District (CVWD) immediately north of the right of way for the Unnamed Street. Our investigation was restricted by the presence of this waterline and we were not able to trench across all the area considered for development that is within the Alquist-Priolo Fault zone. Accordingly, we trenched as close as practicable to the waterline and established a setback from the furthest southerly point in the trench that we could establish unfaulted sediments. This point is identified as Station 9+00 in Trench ST-4. This corresponds to a distance of 70 feet north of the northern boundary of the Unnamed Street as shown on Plate 1 along the length of the Unnamed Street. There is a Survey Monument at the southeast corner of the Ling Yen Temple Property (see Plate 1). The Survey Monument is located at Northing 1893004.4923 and Easting 6724560.0304 Elevation 1763.11. The southern setback is 650 feet west of the point then 570 feet north. That point defines the northern limit of the southern set back which trends east-west.

Northern Building Restriction and Setback Zone – The faults identified in ST-4 at station 0+91 and ST-5 at Station 1+25 in our opinion line up as a continuous feature and represent the orientation of the southernmost fault. The orientation is N72E. Accordingly, the building setback is defined as 50 feet in a direction perpendicular to the trend (N72E) from the point the where the fault was surveyed at Station 0+91 in Trench ST-5

### **Concluding Statement**

Based on our investigation, active faults have been identified within the site. While fault rupture would most likely occur along established fault traces, fault rupture could occur at other locations. The potential for a significant impact from fault surface rupture not on an existing fault is anticipated to be very low. Based on our findings provided above, the project site is considered appropriate for the proposed development outside the building restrictions zones discussed above and shown on Plate 1.

**CLOSURE**

The conclusions and opinions contained in this report are based on the results of the described geologic evaluations and represent our professional judgment. The contents of this report are professional opinions and as such, are not to be considered a guaranty or warranty. The findings, conclusions and opinions contained in this report are to be considered tentative only and subject to confirmation by the undersigned during the construction process. Without this confirmation, this report is to be considered incomplete and Petra or the undersigned professionals assume no responsibility for its use.

The professional opinions contained herein have been derived in accordance with current geologic standards of practice and no warranty is expressed or implied. This report has not been prepared for use by parties or projects other than those named or described herein. This report may not contain sufficient information for other parties or other purposes.

This opportunity to be of service is greatly appreciated. Should you have any questions regarding this report, please do not hesitate to contact us.

Respectfully submitted,

**PETRA GEOTECHNICAL, INC.**



Alan Pace, CEG  
Senior Associate Geologist

Attachments:   References  
                  Figure 1 – Site Location Map  
                  Figure 2 – Alquist-Priolo Map  
                  Figure 3 – Index Map  
                  Figures 4 through 39 – Fault Trench Logs  
                  Plate 1 –Trench location/Fault/Building Restriction Zones Map.

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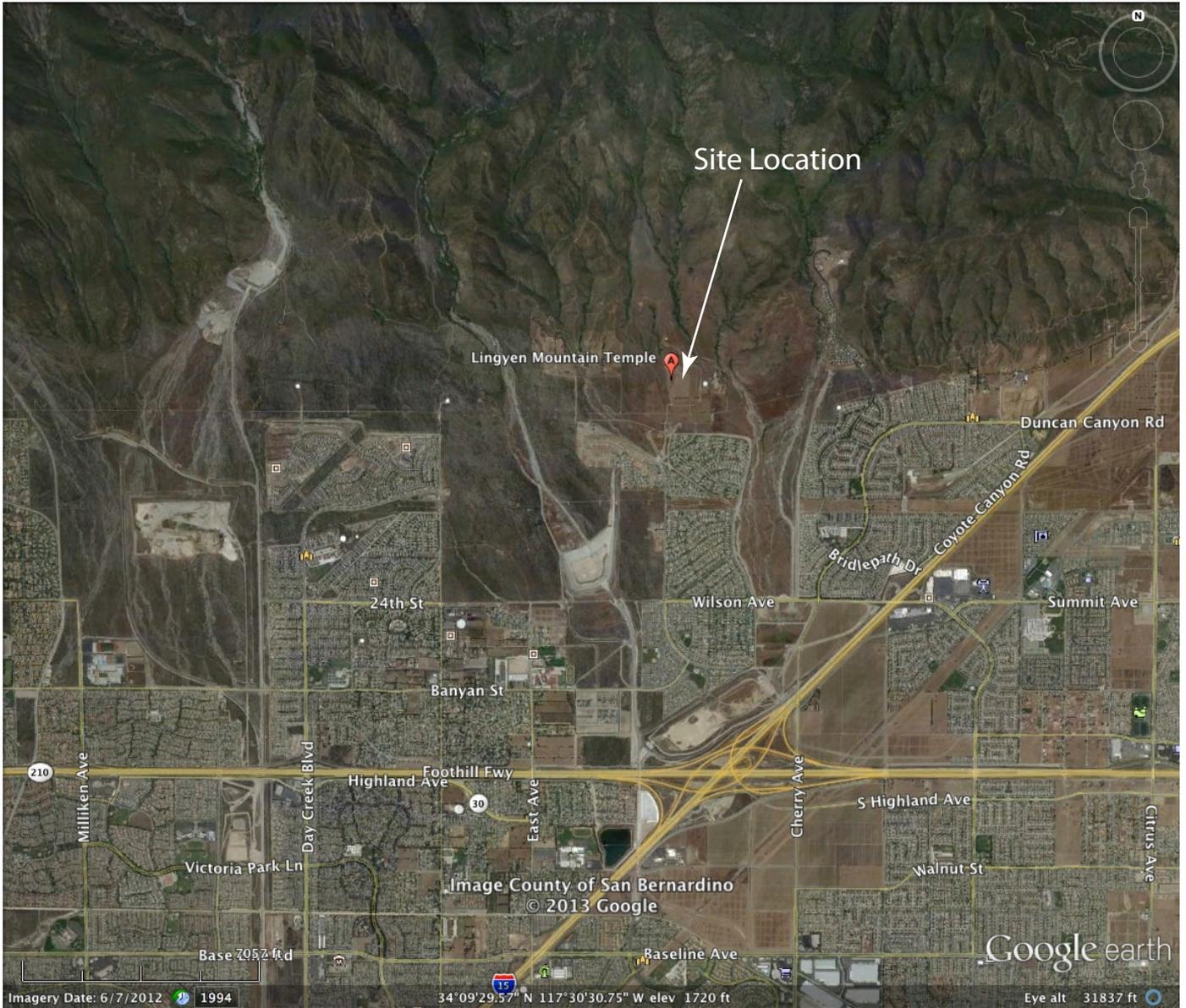
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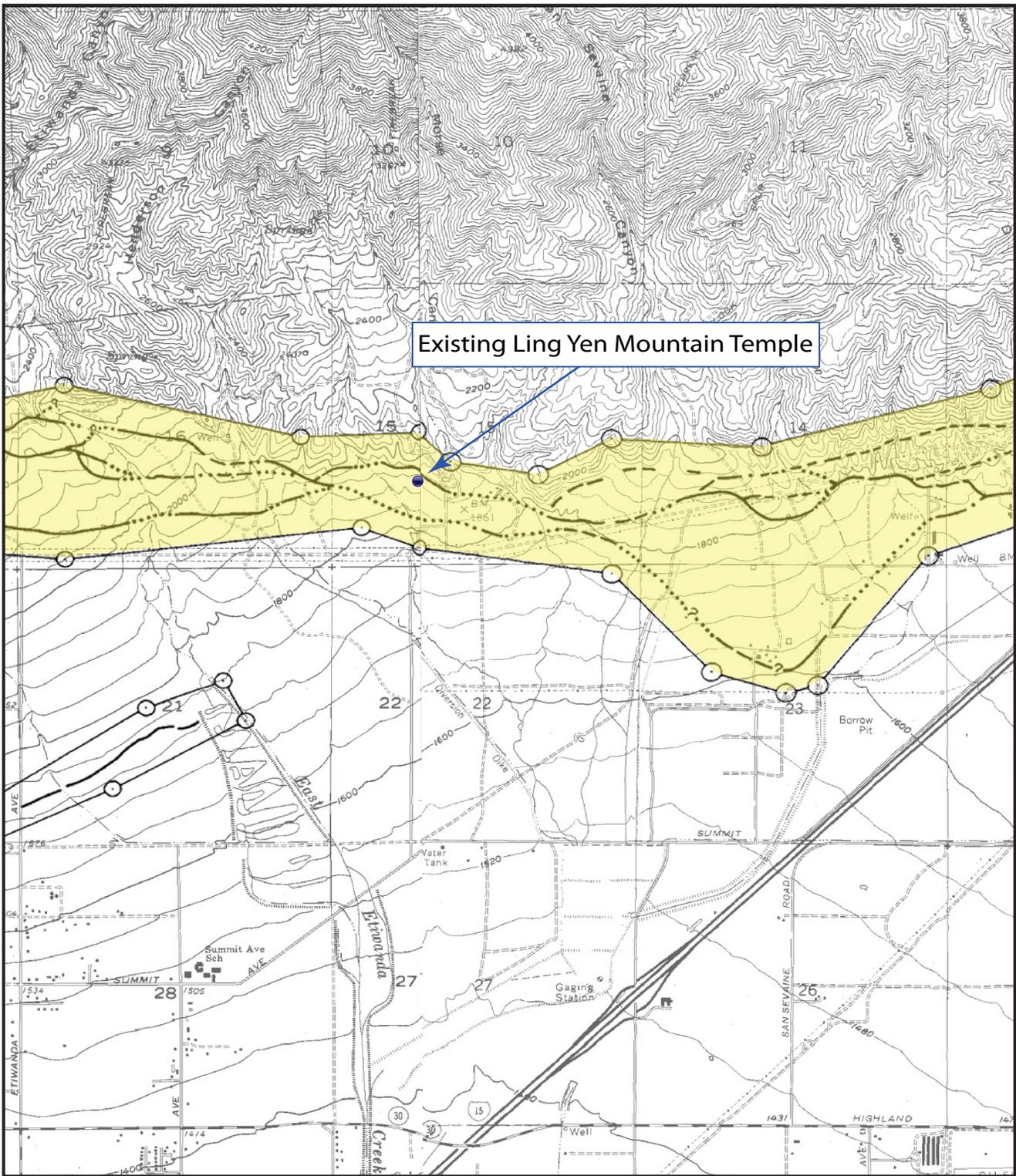
**Aerial Photographs Reviewed**

<b>Source/Agency</b>	<b>Date</b>	<b>Flight No.</b>	<b>Frame(s)</b>
Google Earth Imagery	3/21/12	N/A	N/A
Google Earth Imagery	3/15/13	N/A	N/A
Google Earth Imagery	6/7/12	N/A	N/A
Google Earth Imagery	3/9/11	N/A	N/A
Google Earth Imagery	11/15/09	N/A	N/A
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Google Earth Imagery	1/30/06	N/A	N/A
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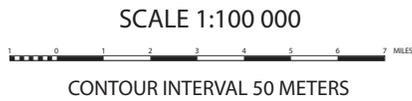
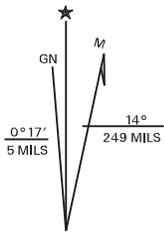
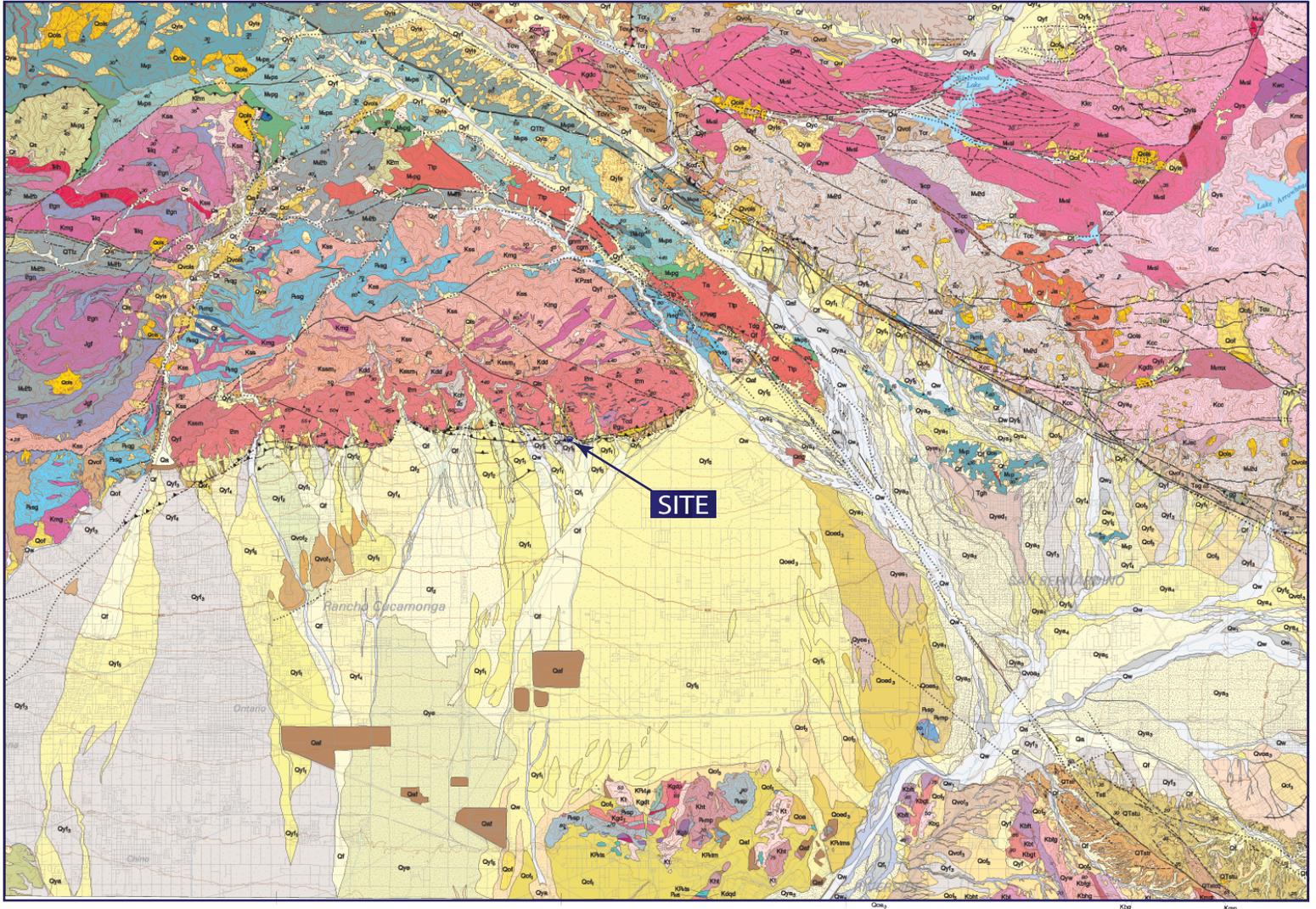
Reference: Base map provided Google Earth

 <b>PETRA GEOTECHNICAL, INC.</b> 42240 Green Way, Suite E Palm Desert, California 92211 PHONE: (760) 340-5303 COSTA MESA    TEMECULA    PALM DESERT    SAN DIEGO    SANTA CLARITA		
Ling Yen Mountain Temple Geohazards Study San Bernardino County, CA		
DATE: April 2014	J.N.: 13-305	<b>Figure 1</b>
DWG BY: AP	SCALE: 1:24000	



Reference: State of California Earthquake Fault Zones  
Cucumonga Peak and Devore Quadrangles

 <b>PETRA GEOTECHNICAL, INC.</b> 42240 Green Way, Suite E Palm Desert, California 92211 PHONE: (760) 340-5303 COSTA MESA   TEMECULA   PALM DESERT   SAN DIEGO   SANTA CLARITA		
<b>ALQUIST PRIOLO EARTHQUAKE FAULT ZONE MAP CUCAMONGA PEAK AND DEVORE QUADRANGLES</b>		
Ling Yen Mountain Temple Geohazards Study San Bernardino County, CA		
DATE: April, 2014	J.N.:13-305	<b>Figure 2</b>
DWG BY: AP	SCALE: 1:24,000	



**PETRA GEOTECHNICAL, INC.**

42240 Green Way, Suite E  
 Palm Desert, California 92211  
 PHONE: (760) 340-5303

COSTA MESA    TEMECULA    PALM DESERT    SAN DIEGO    SANTA CLARITA

**INDEX MAP**

Ling Yen Mountain Temple, Active Faulting Investigation  
 San Bernardino County, CA

DATE: April 2014

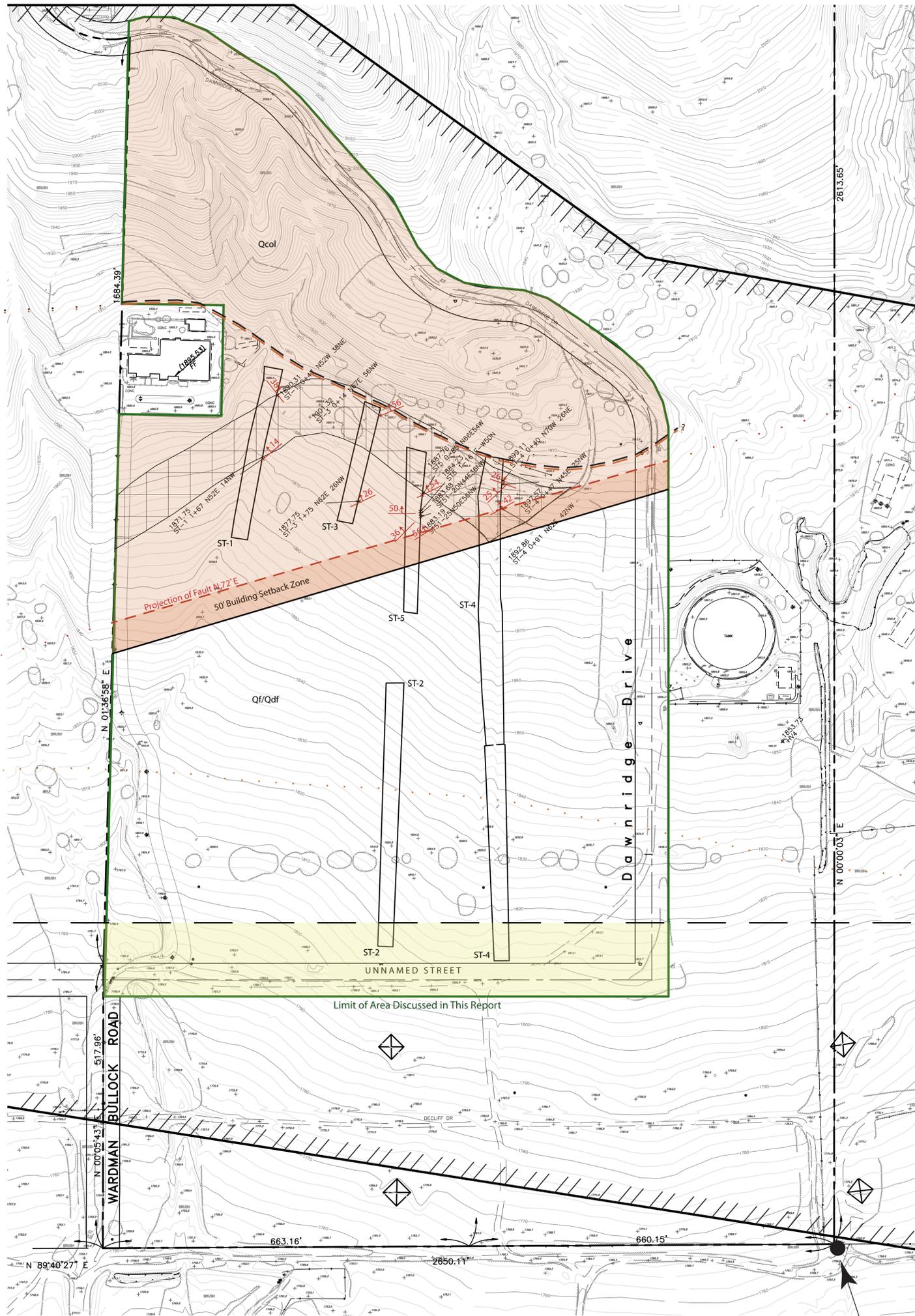
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**Figure 3**

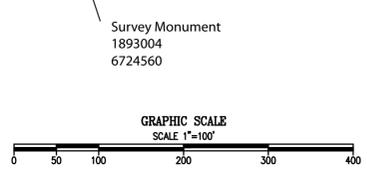
Base map digital layers (roads, topographic contours, and hydrography) were prepared from publicly available digital line graph (DLG) data, San Bernardino 1:100,000 metric quadrangle. Adopted from the Preliminary Geologic Map of the San Bernardino 30' X 60' Quadrangle, California. Compiled by Douglas M. Morton and Fred K. Miller, 2003.



Note: Southern Building Setback - There is a water line owned and operated by the Cucamonga Valley Water District (CVWD) immediately north of the right of way for Decliff Drive. Our investigation was restricted by the presence of this waterline and we were not able to trench across all the area considered for development that is within the Alquist-Priolo Fault zone. Accordingly, we trenched as close as practicable to the waterline and established a setback from the furthest southerly point in the trench that we could establish unfaulted sediments. This point is identified as Station 9+00 in Trench ST-4. This corresponds to a distance of 70 feet north of the northern boundary of Decliff Drive as shown on Plate 1 along the length of Decliff Drive.

### LEGEND

	Location of faults identified in trench wall exposures Orientation of long line indicates the fault strike		Short line with arrow indicates direction of fault dip Number indicates the degree of fault dip
	Projection of Fault		Approximate location of faults mapped by Morton and Matti 1987. Dashed where inferred, dotted where buried or not investigated.
	Investigated Building Restriction Zone and Northward Property		Geologic contact
	Kaup (2006 Building Setback zone)		Qf/Qdf Intermixed Alluvial Fan and Debris Flow Deposit
	Building Restriction Zone		Qcol Colluvial Deposits
	Building Setback Zone		Limits of Alquist Priolo Fault Zone
	Bounds of trenches excavated for This investigation		



Reference - Base Map Provided by Altum Group.

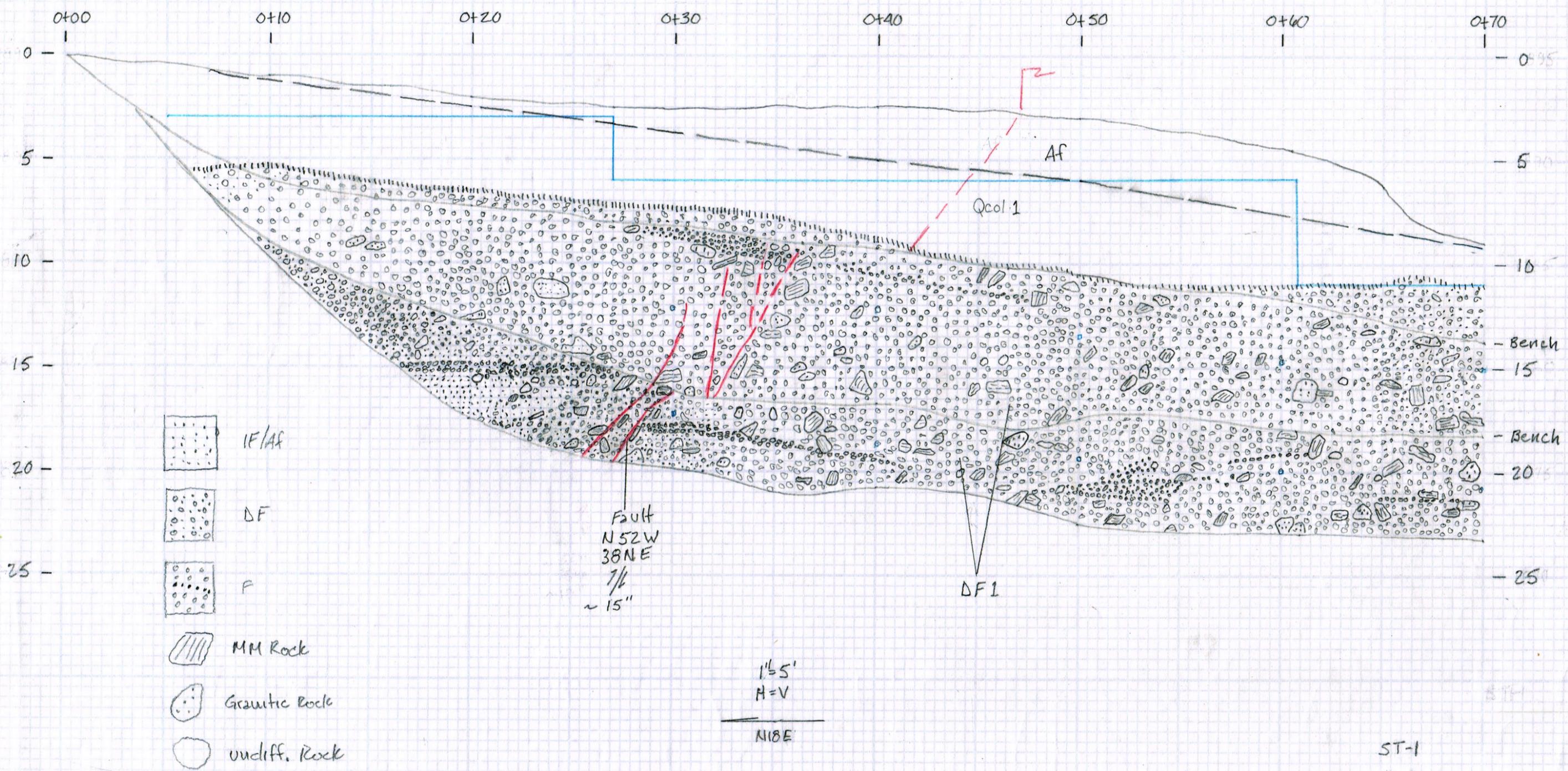
**PETRA GEOTECHNICAL, INC.**  
 42240 Green Way, Suite E  
 Palm Desert, California 92211  
 PHONE: (760) 340-5303

COSTA MESA    TEMECULA    PALM DESERT    SAN DIEGO    SANTA CLARITA

**BUILDING SETBACK ZONES  
 FAULT AND TRENCH LOCATION MAP**

Ling Yen Mountain Temple, Active Faulting Investigation  
 San Bernardino County, CA

DATE: April 2014	J.N.: 13-305	<b>Plate 1</b>
DWG BY: AP	SCALE: See Bar Scale	

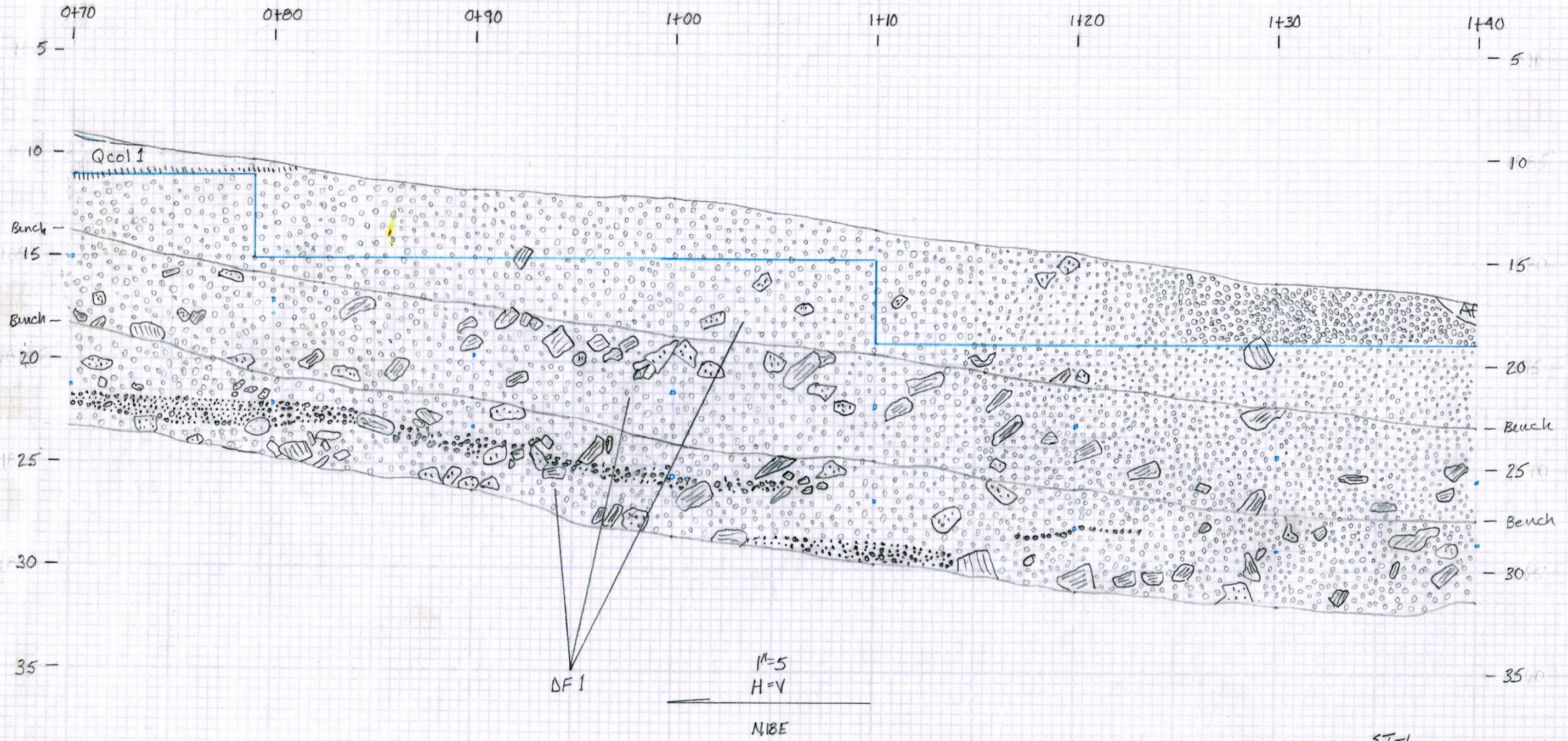


-  IF/AR
-  DF
-  F
-  MM Rock
-  Granitic Rock
-  undiff. Rock

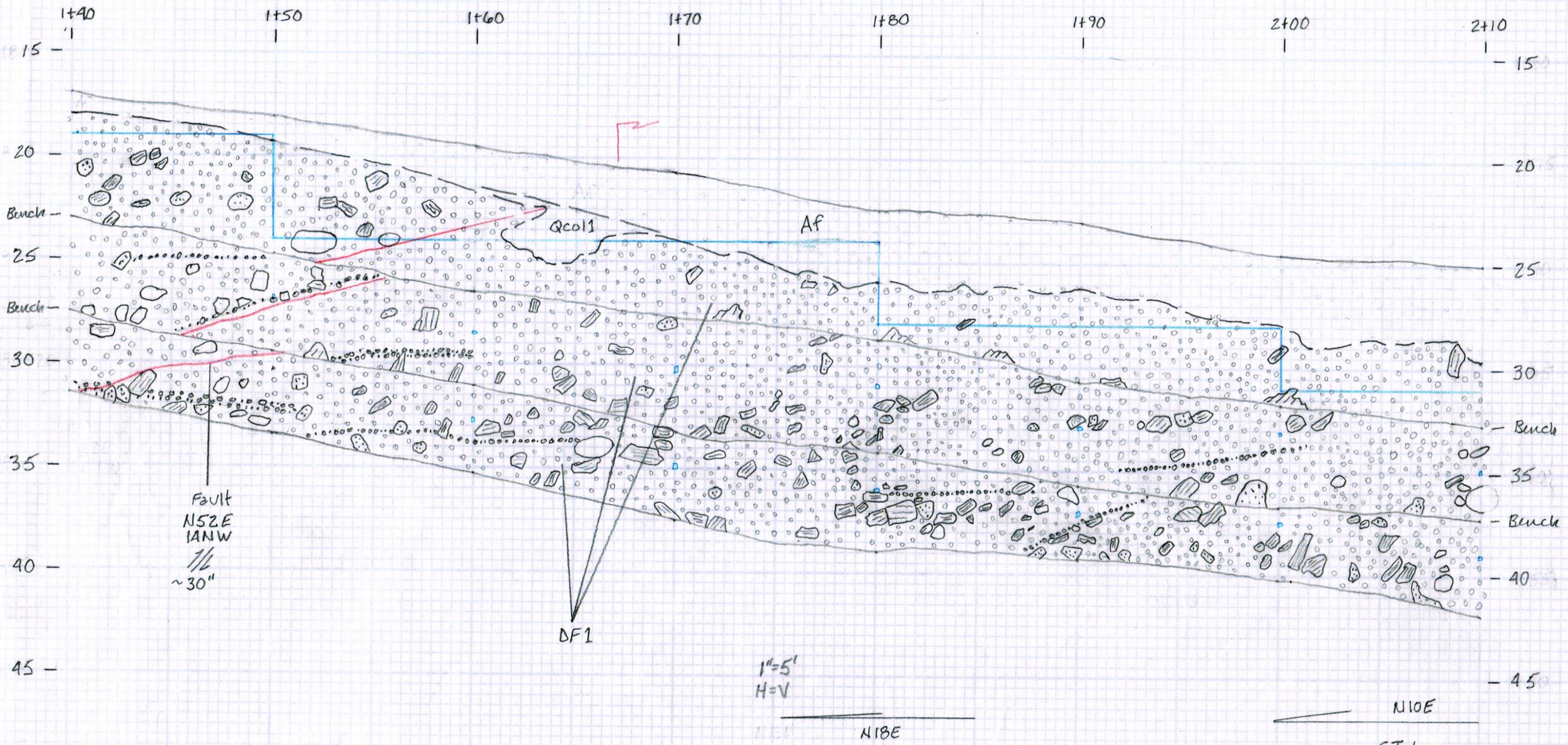
Fault  
 N52W  
 38NE  
 7/16  
 ~15"

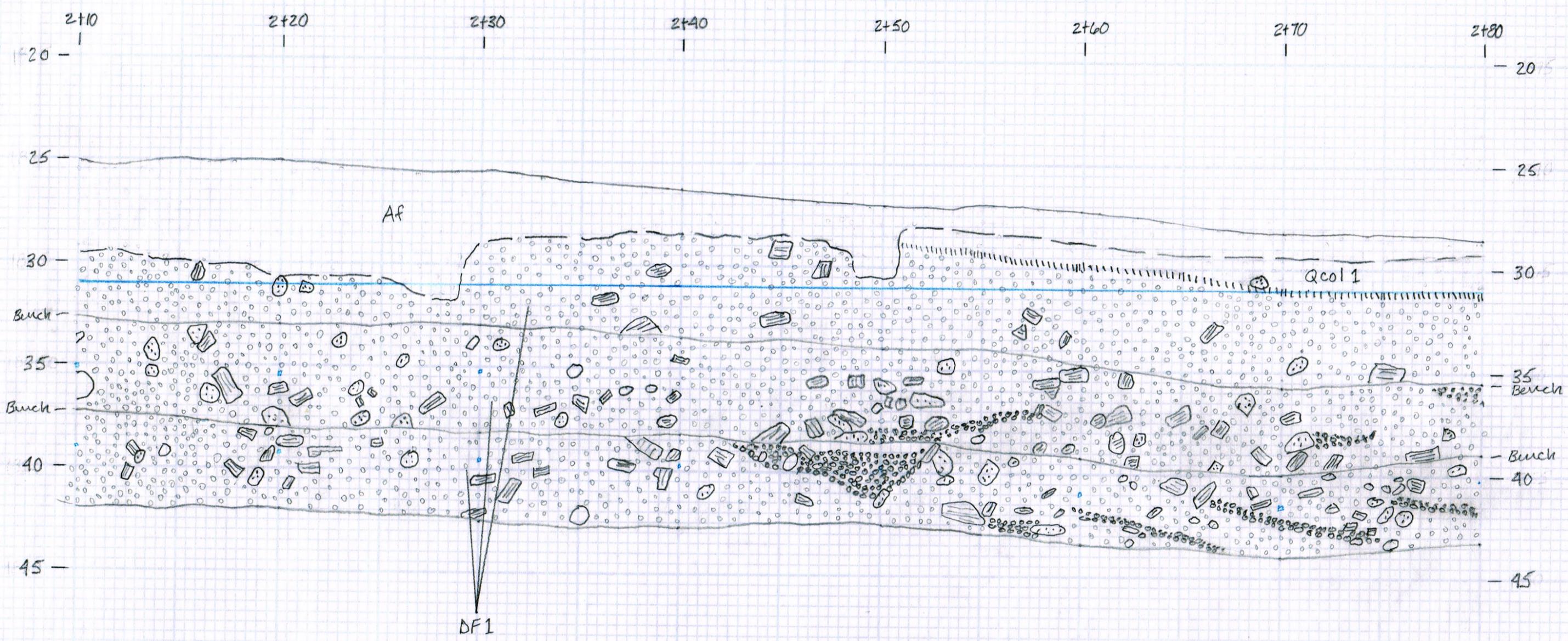
1 1/2' = 5'  
 H=V  
 N18E

ST-1  
 13-305  
 Ling Yen Mtn Temple  
 June-July 2013  
 Sh 1 of 5



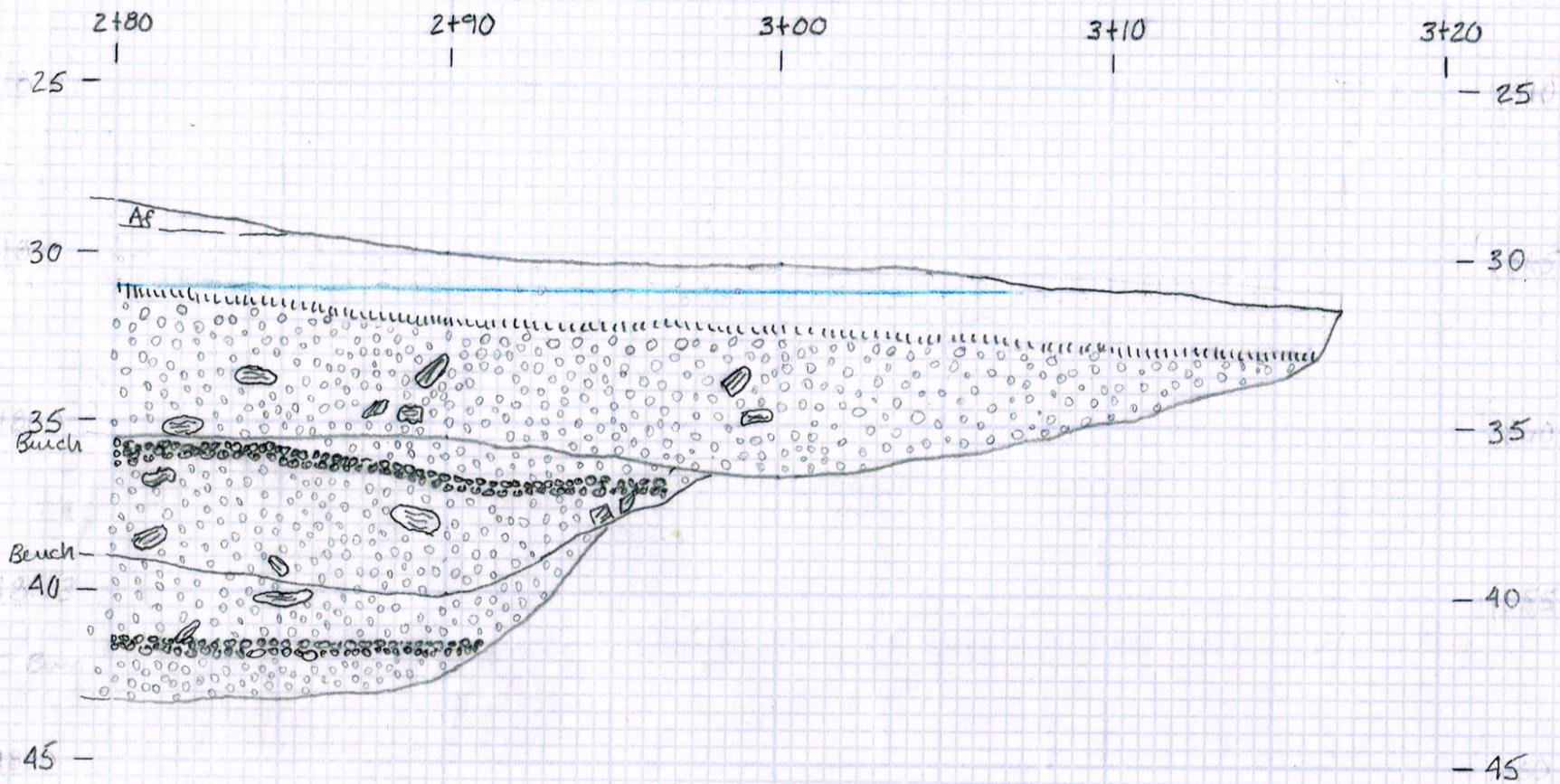
ST-1  
 13-305  
 Ling Yen Mtn Temple  
 June-July 2013  
 Sh 2 of 5





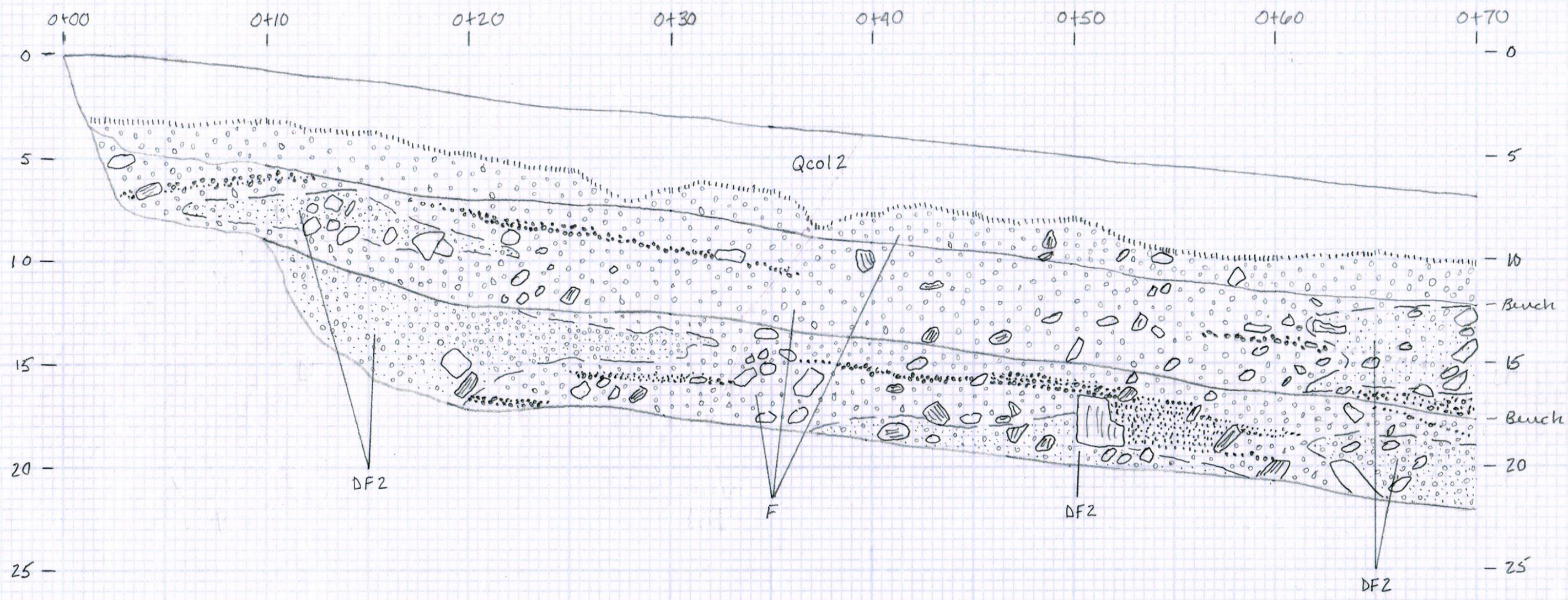
1" = 5'  
 H = V  
 NISE

ST-1  
 13-305  
 Ling Yen Mtn Temple  
 June-July 2013  
 Sh 4 of 5



$1" = 5'$   
 $H = V$   
 N15E

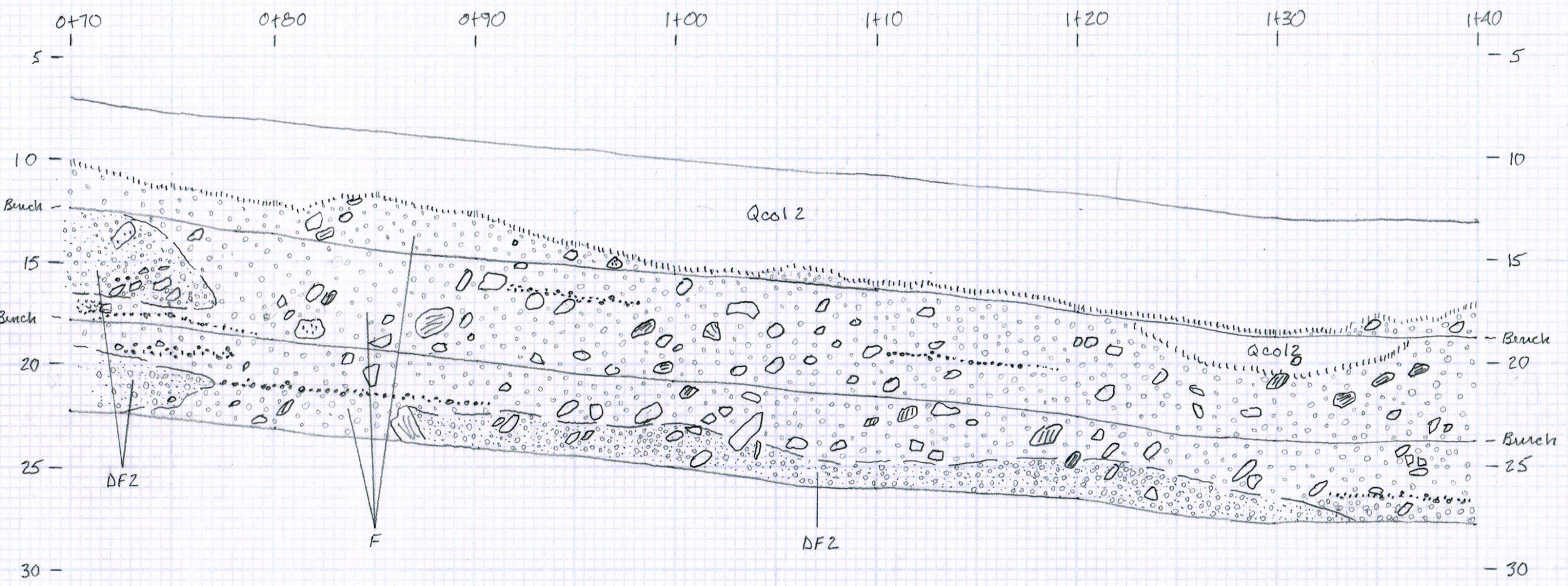
ST-1  
 13-305  
 Ling Yen Mtn Temple  
 June-July 2013  
 SH 5 of 5



1" = 5'  
H = V

NOSE

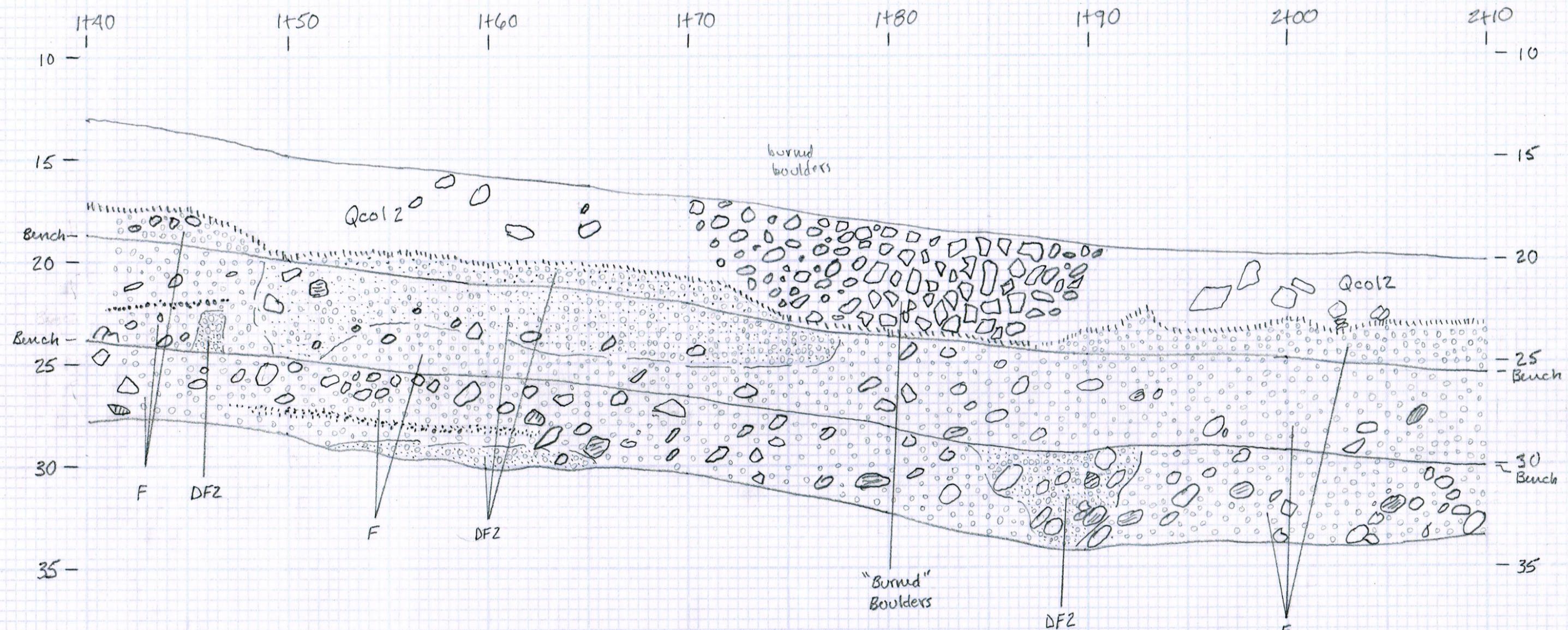
ST-2  
B-305  
Ling Yen Mtn Temple  
July 2013  
Sh 1 of 7



1/4" = 5'  
H = V

NOSE

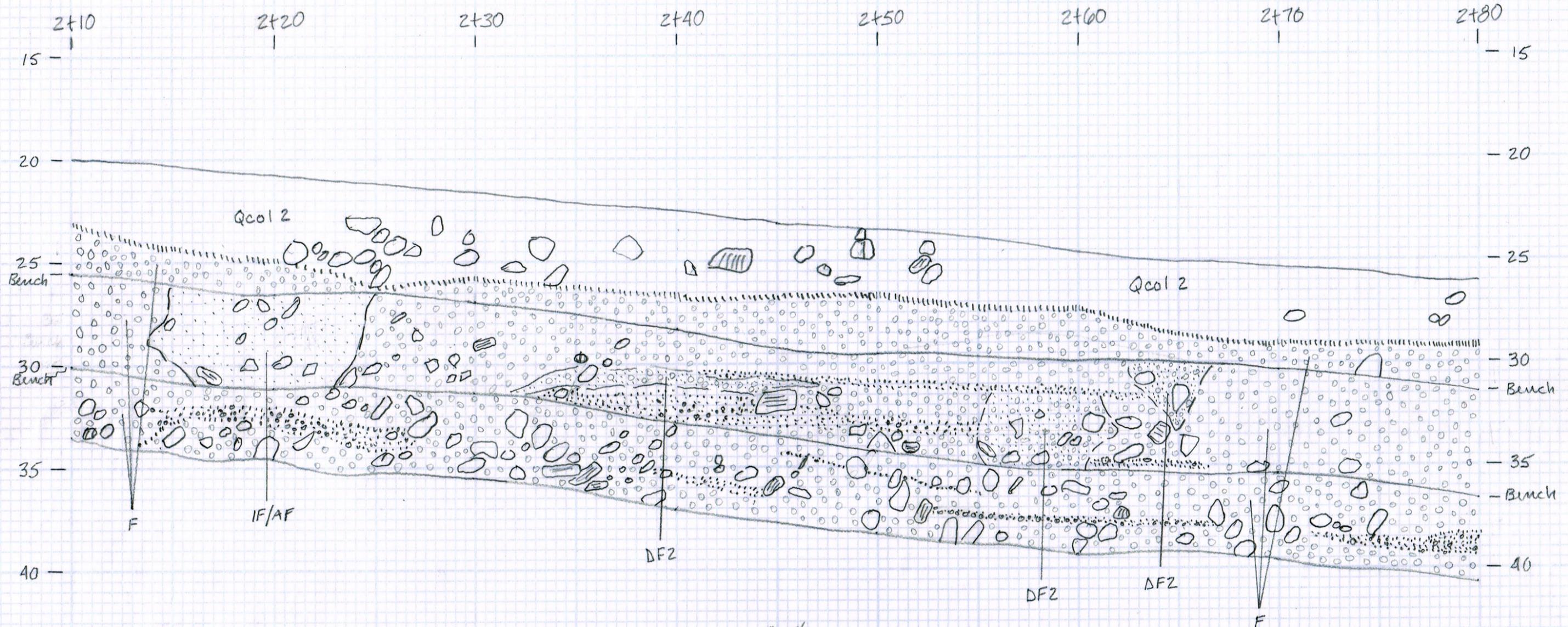
ST-2  
13-305  
Ling Yen Mtn Temple  
July 2013  
Sh 2 of 7



1"=5'  
 H=V  
 NOSE

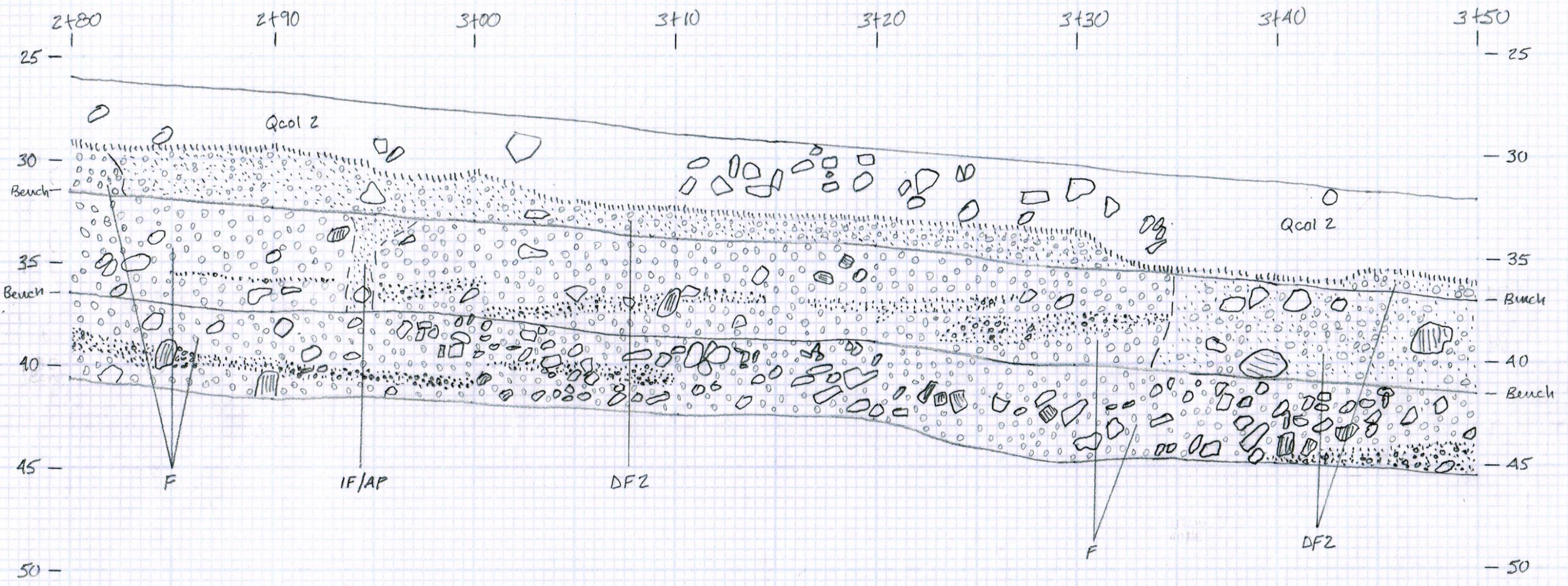
ST-2  
 13-305  
 Ling Yen Mtu Temple  
 July 2013  
 SK3 OF 7

2+37  
N42E  
24NW



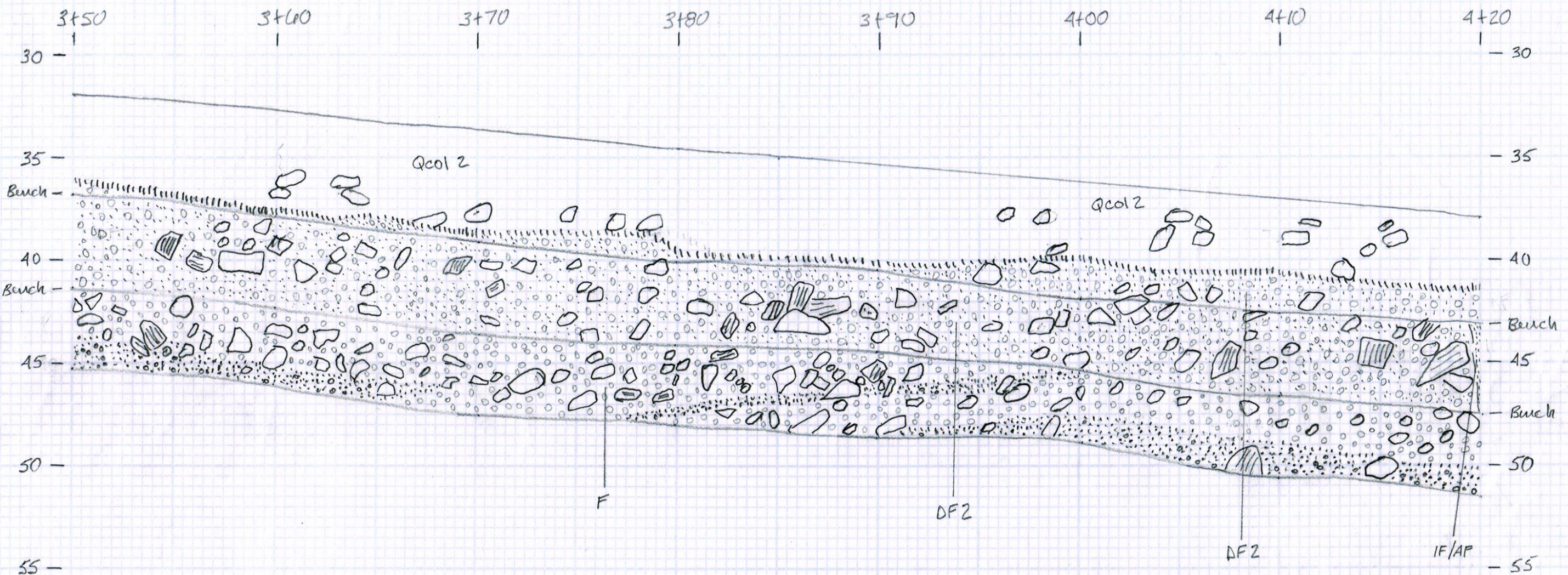
M=5'  
H=V  
-----  
N10SE

ST-2  
13-305  
Ling Yen Mt Temple  
July 2013  
Sh 4 of 7



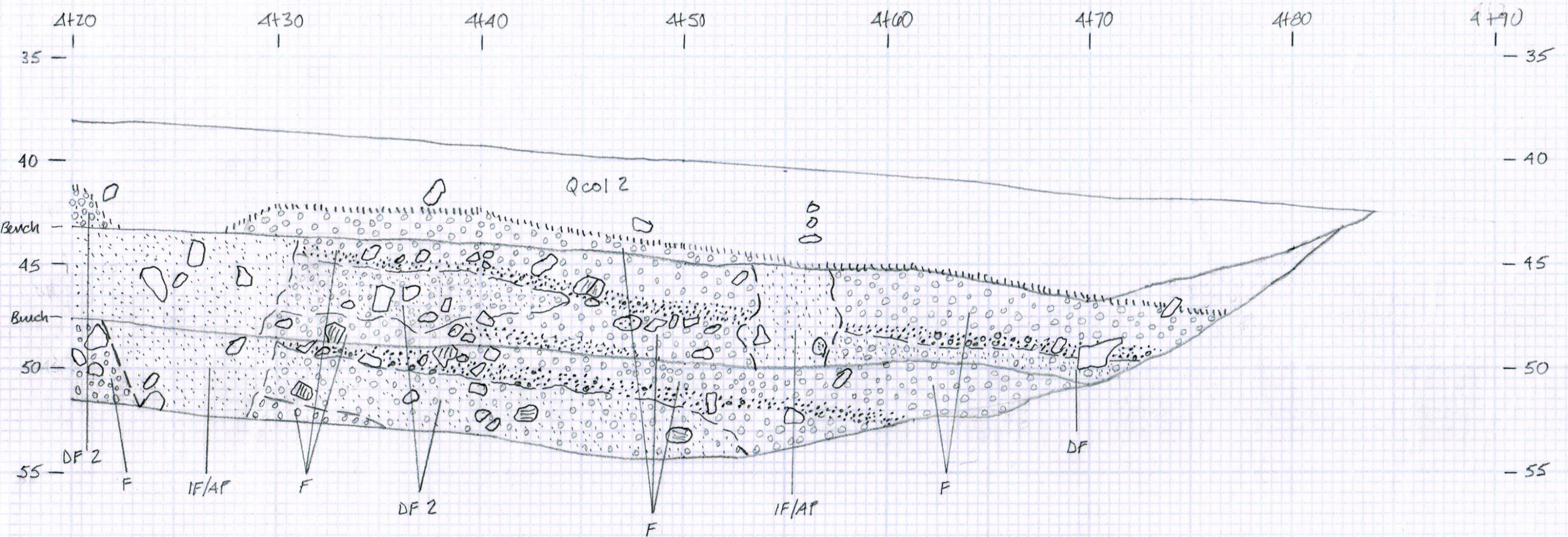
$H=5'$   
 $H=V$   
 \_\_\_\_\_  
 NOSE

ST-2  
 13-305  
 Ling Yen Mtu Temple  
 July 2013  
 Sh 5 of 7



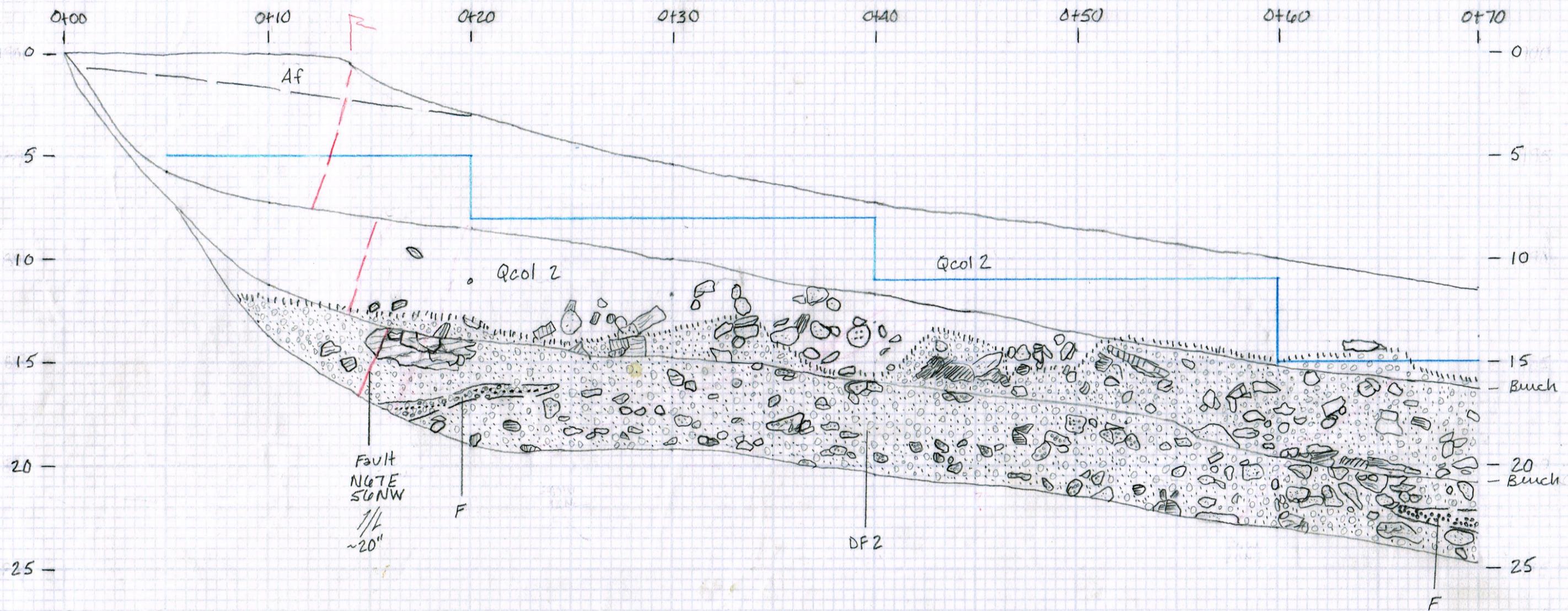
1" = 5'  
 H = V  
 ← NOSE

ST-2  
 13-305  
 Ling Yen Mtn Temple  
 July 2013  
 Sh 6 of 7



$\theta = 5^\circ$   
 $H = V$

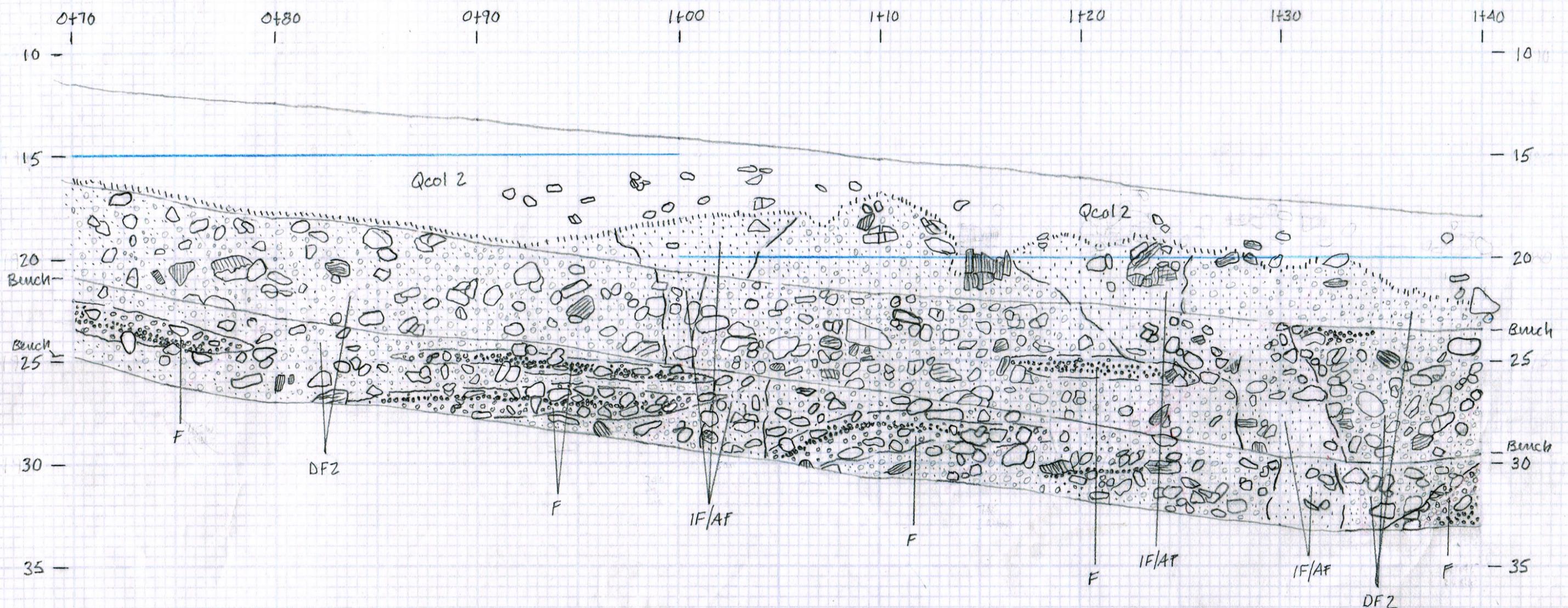
ST-2  
 13-305  
 Ling Yen Mtu Temple  
 July 2013  
 SU 7 of 7



Fault  
N67E  
S6NW  
1/4  
~20"

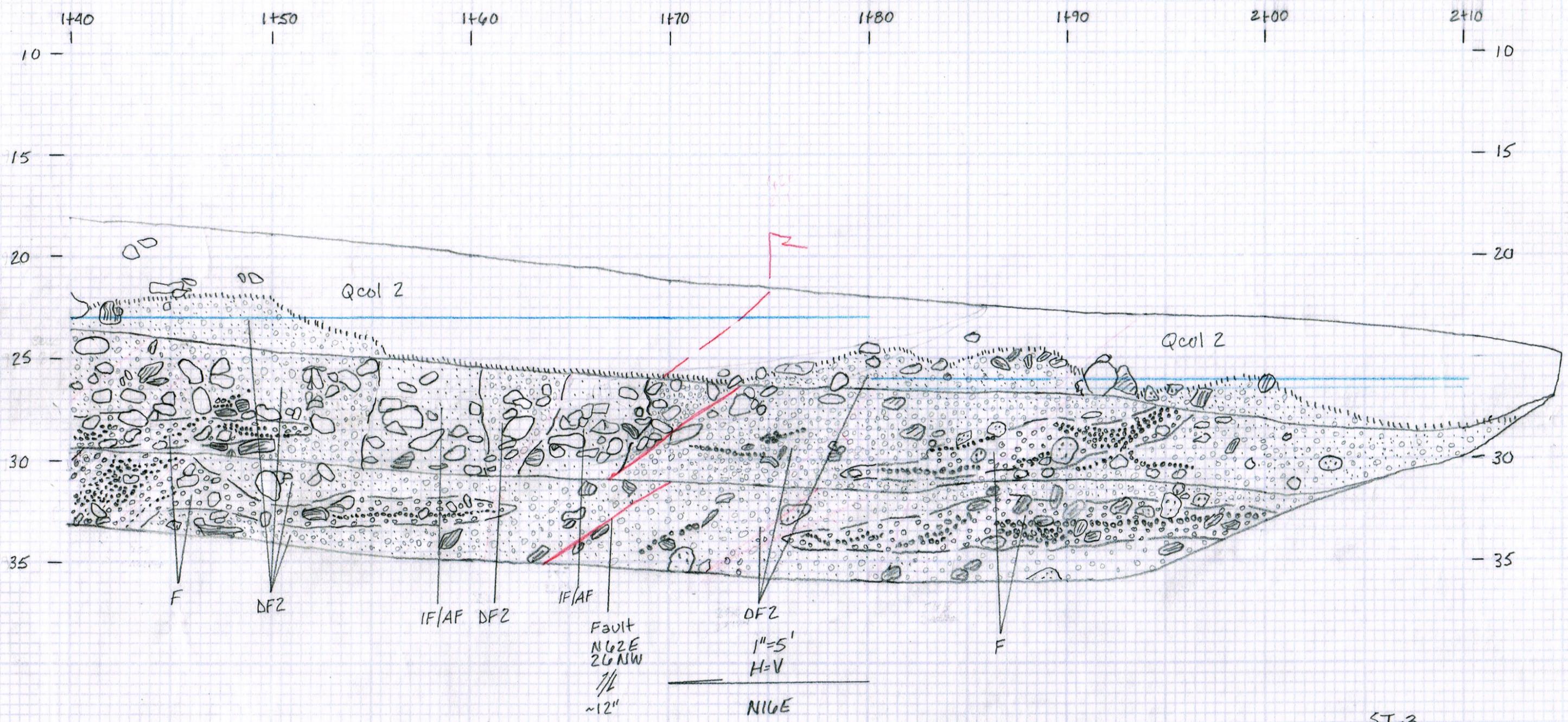
1"=5'  
H=V  
N16E

ST-3  
13-305  
Ling Yen Mtn Temple  
July 2013  
sh 1 of 3

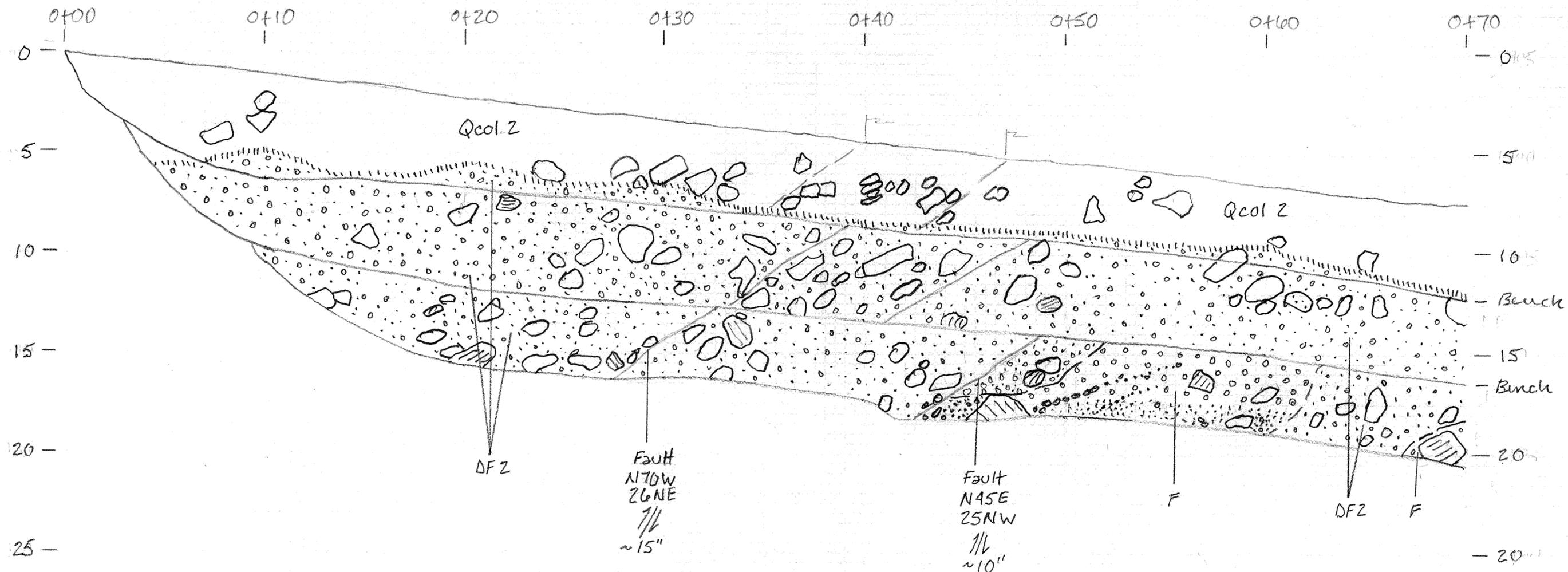


$M=5'$   
 $H=V$   
 N10E

ST-3  
 13-305  
 LingYen Mtn Temple  
 July 2013  
 Sh 2 of 3



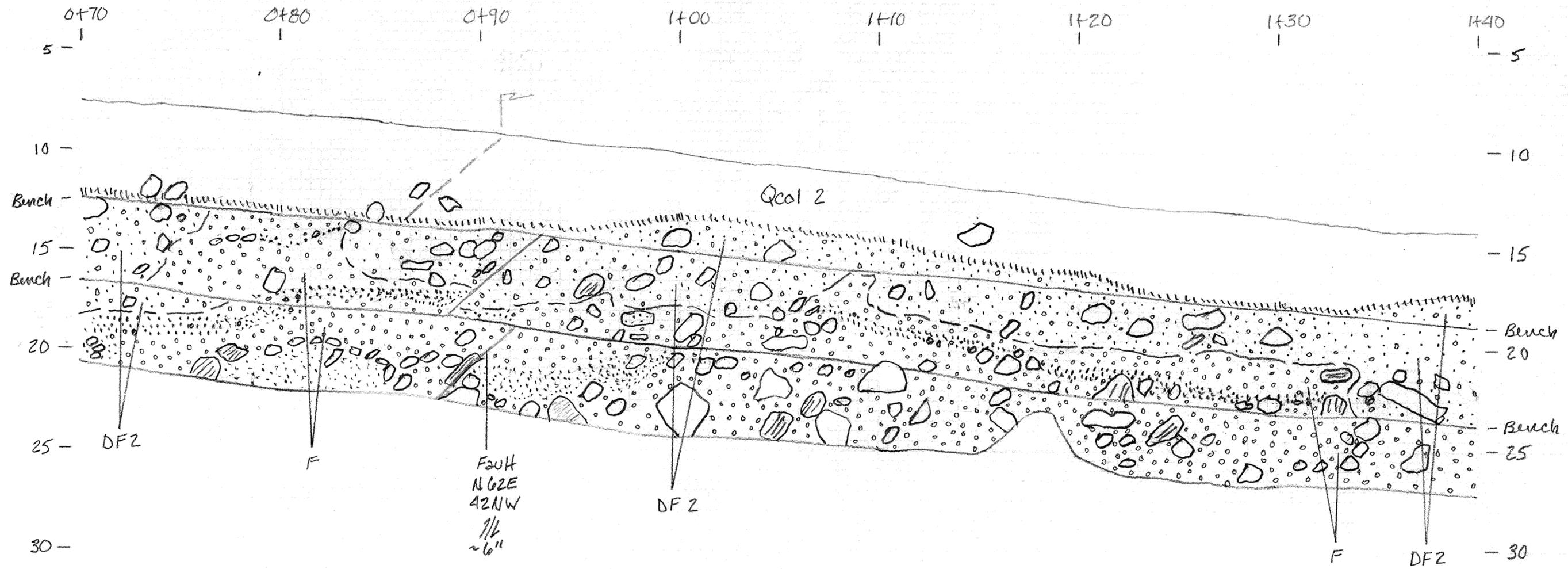
ST-3  
 13-305  
 Ling Yen Mtn Temple  
 July 2013  
 sh 3 of 3



1"=5'  
H=V

N15E

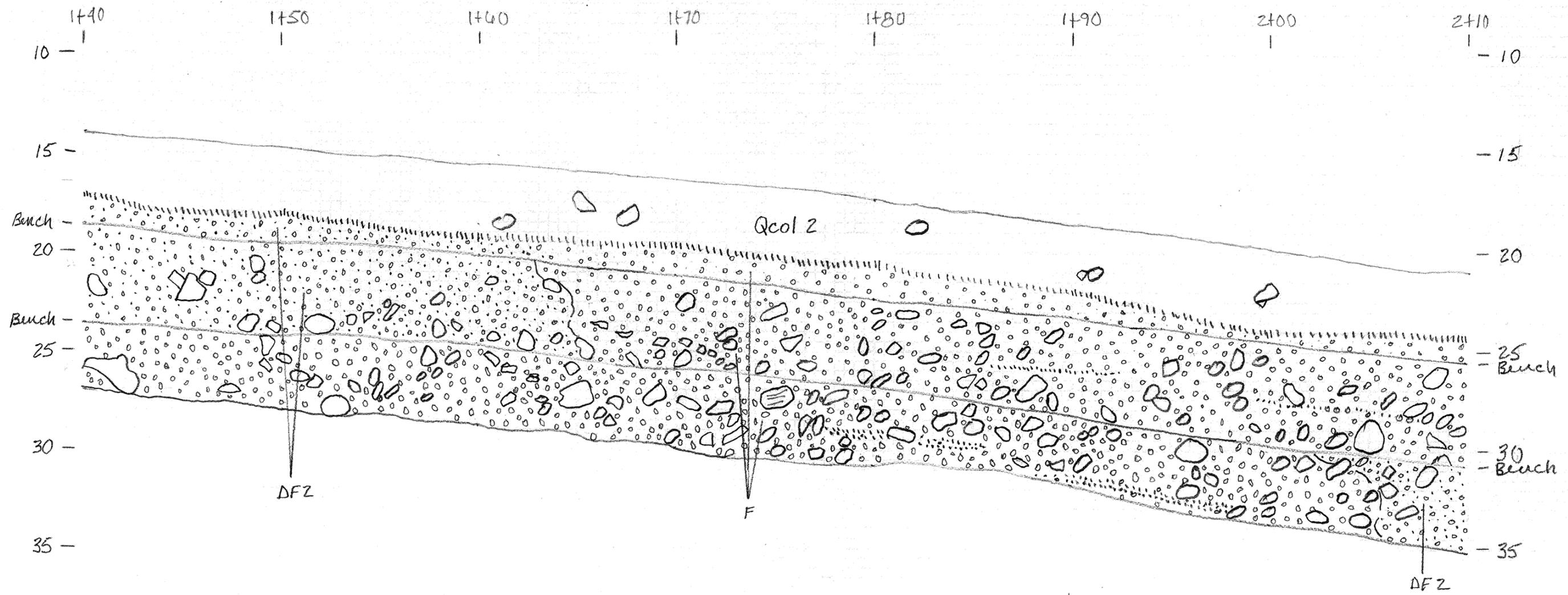
ST-4  
 B-305  
 Ling Yen Mtn Temple  
 July 2013  
 Sh 1 of 13



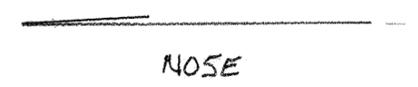
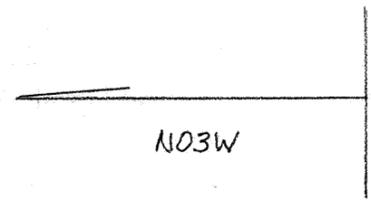
1" = 5'  
H = V

—————  
N03W

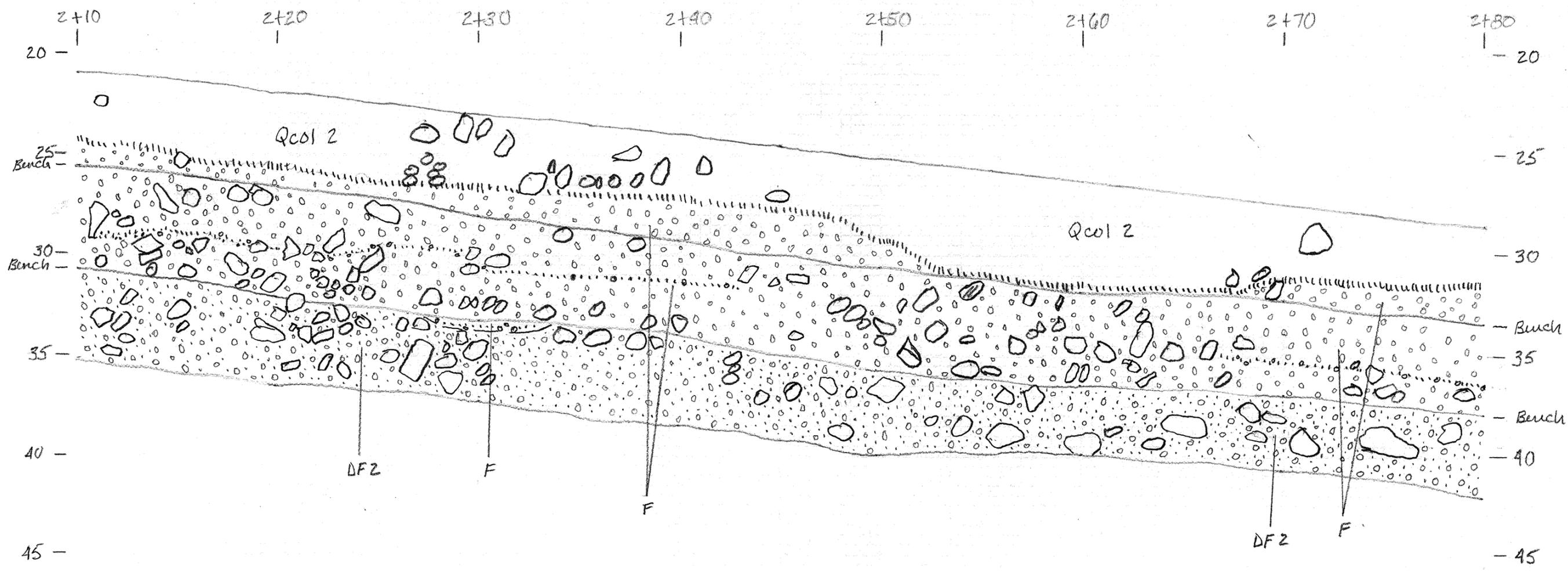
ST-A  
13-305  
Ling Yen Mtn Temple  
July 2013  
Sh 2 of 13



1"=5'  
H=V



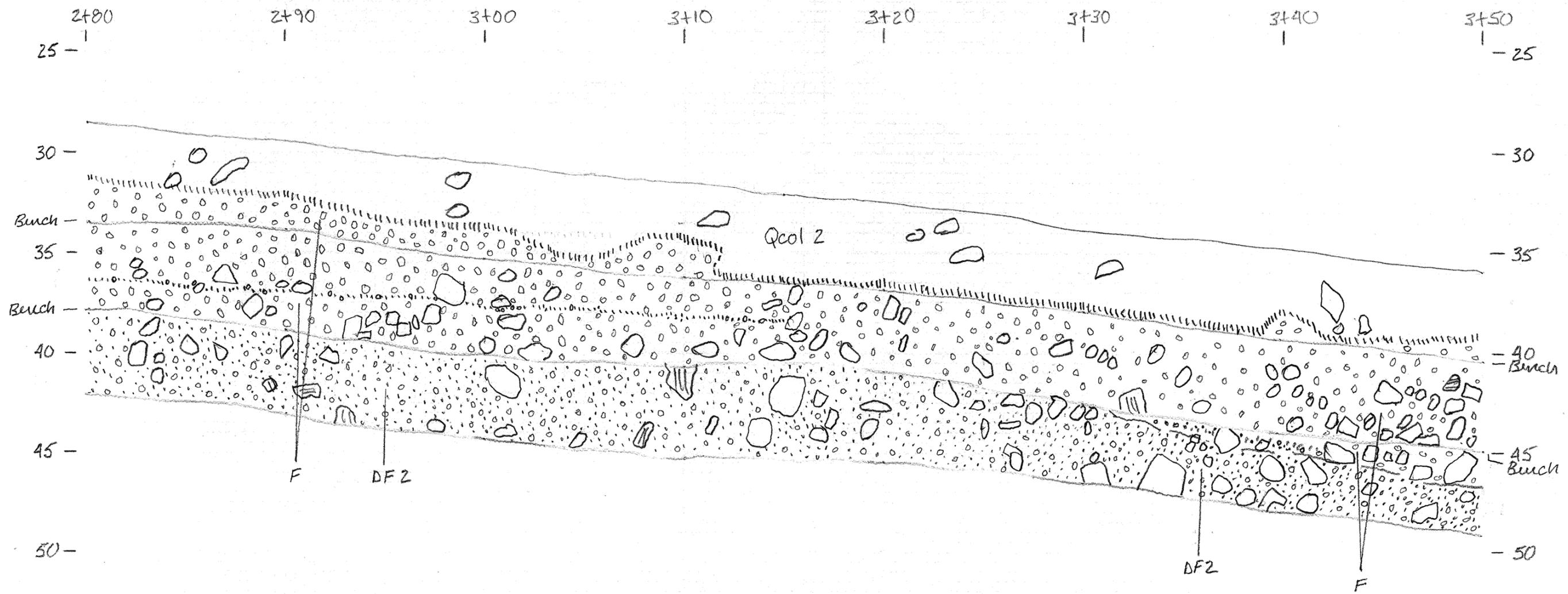
ST-4  
 13-305  
 Ling Yen Mtn Temple  
 July 2013  
 SH 3 of 13



1" = 5'  
H=V

NOSE

ST-4  
13-305  
Ling Yen Mtn Temple  
July 2013  
Sh 4 of 13

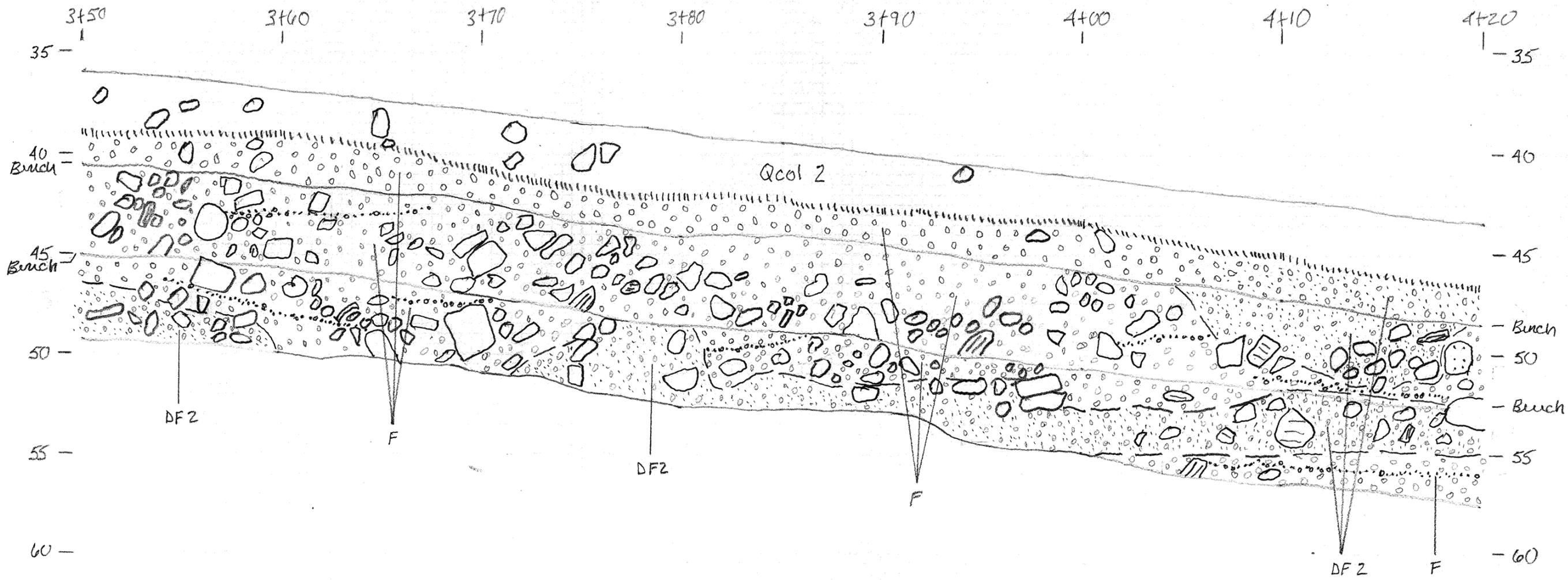


1" = 5'

H = V

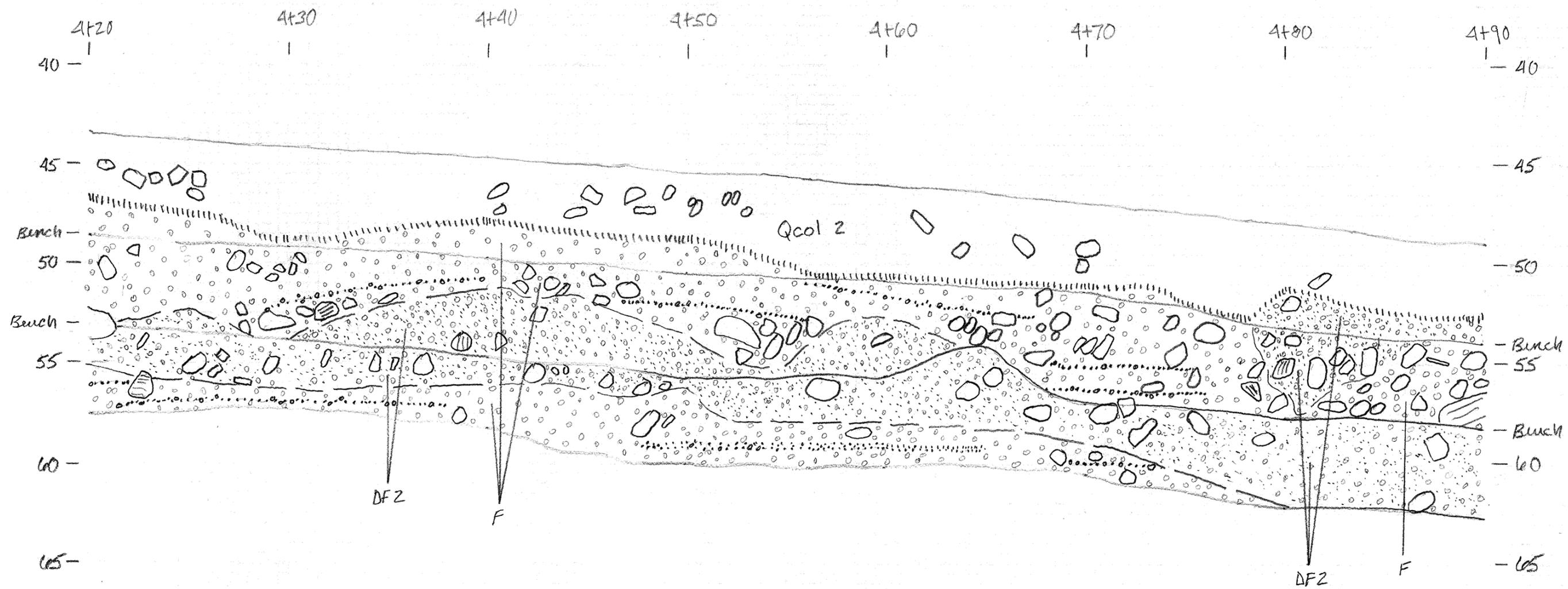
NOSE

ST-A  
 13-305  
 Ling Yen Mtn Temple  
 July 2013  
 Sh 5 of 13



1"=5'  
H=V  
NOSE

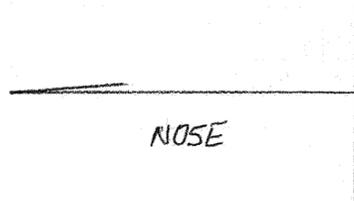
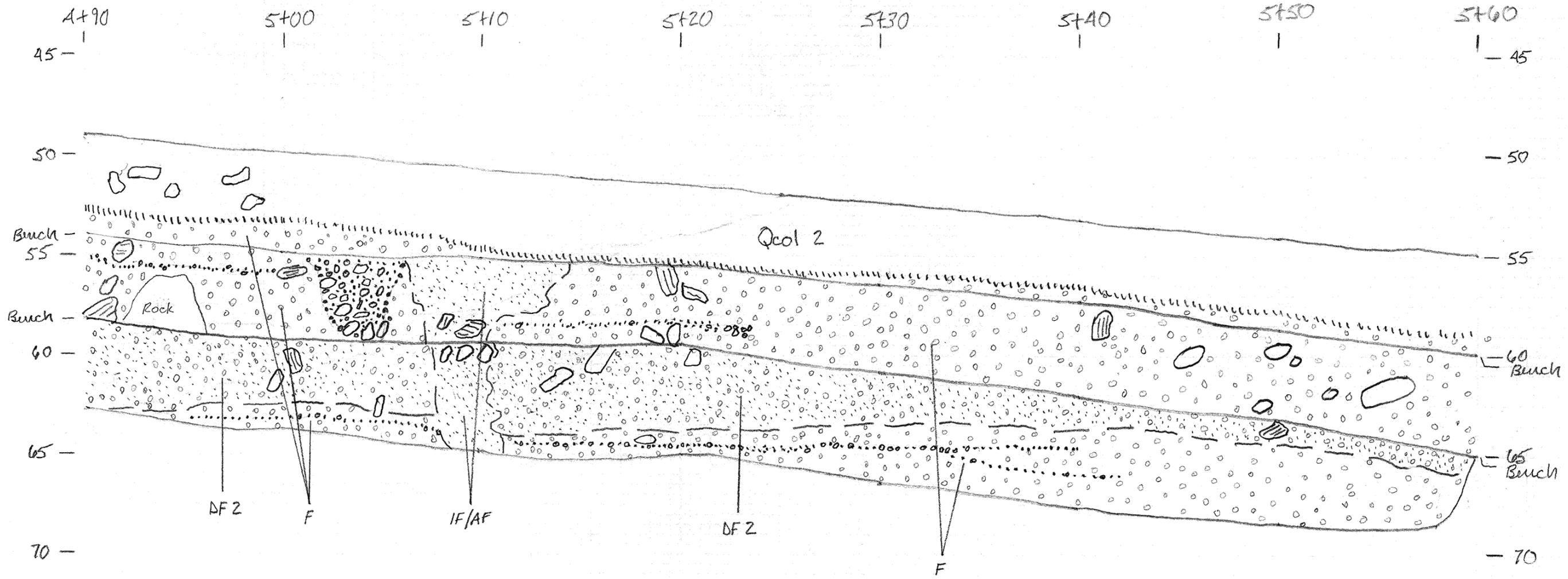
ST-4  
13-305  
Ling Yen Mtn Temple  
July 2013  
Sh 6 of 13



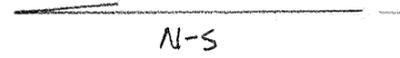
1"=5'  
H=V

NOSE

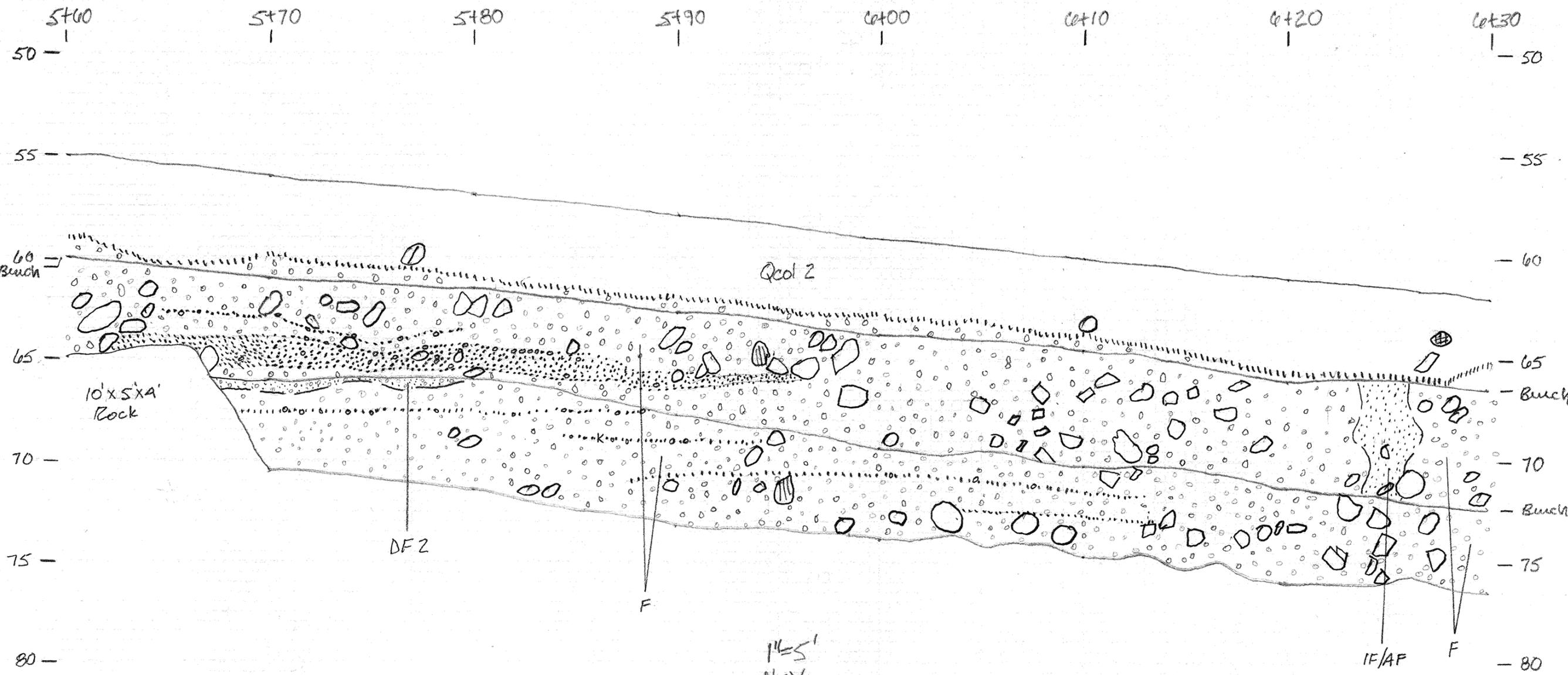
ST-A  
13-305  
Ling Yen Mtn Temple  
JULY 2013  
Sh 7 of 13



1"=5'  
H=V

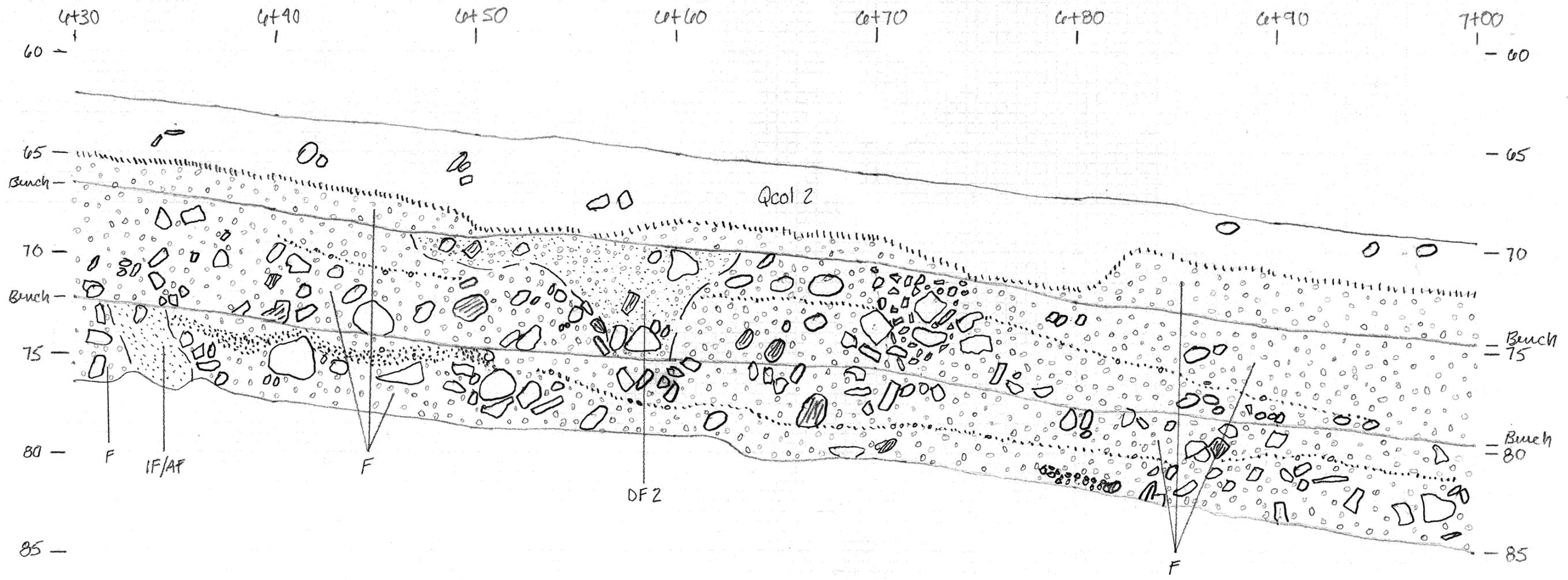


ST-A  
 13-305  
 Ling Yen Mtn Temple  
 JULY 2013  
 sh 8 of 13



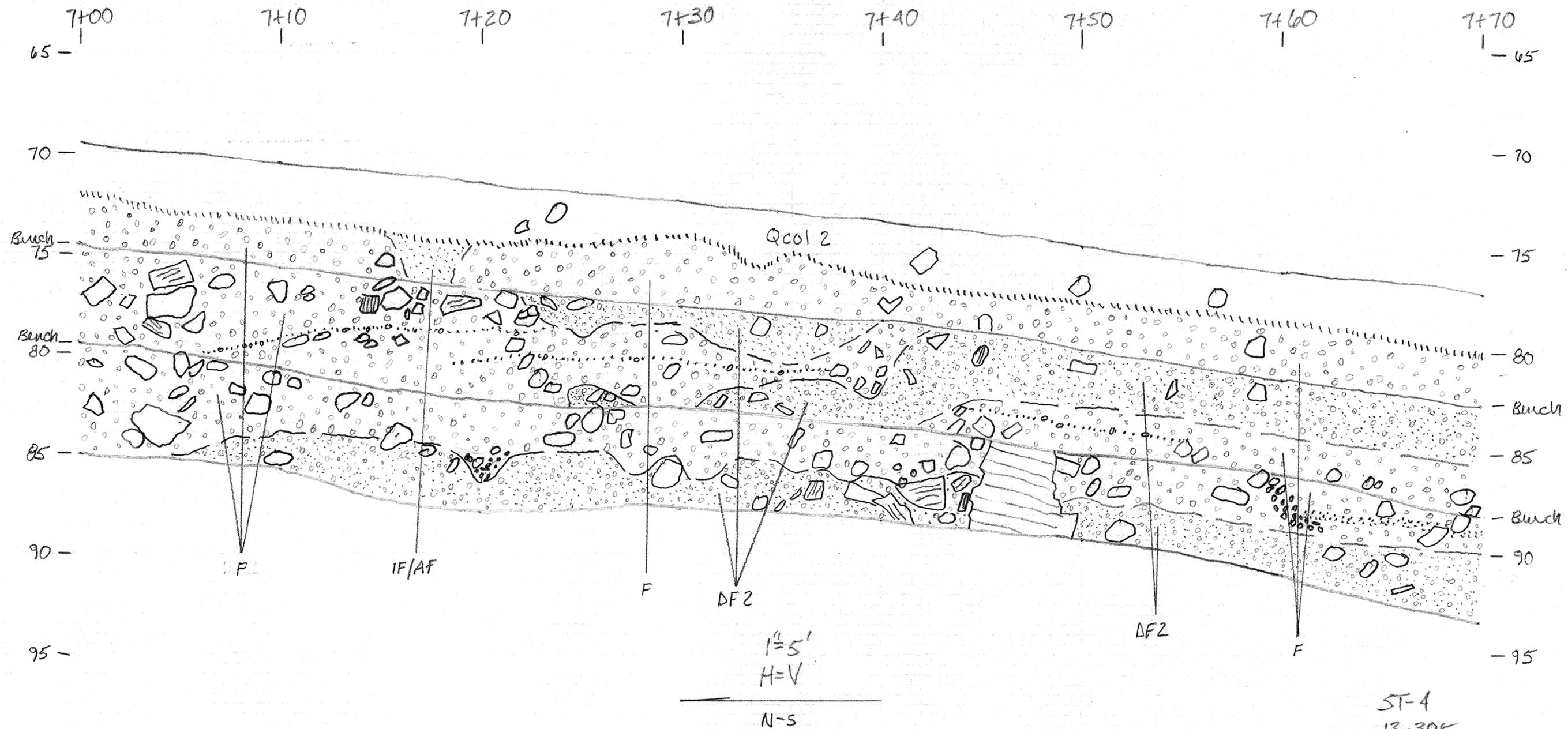
H=5'  
H=V  
N-S

ST-4  
13-305  
Ling Yen Mtn Temple  
August 2013  
Sh 9 of 13

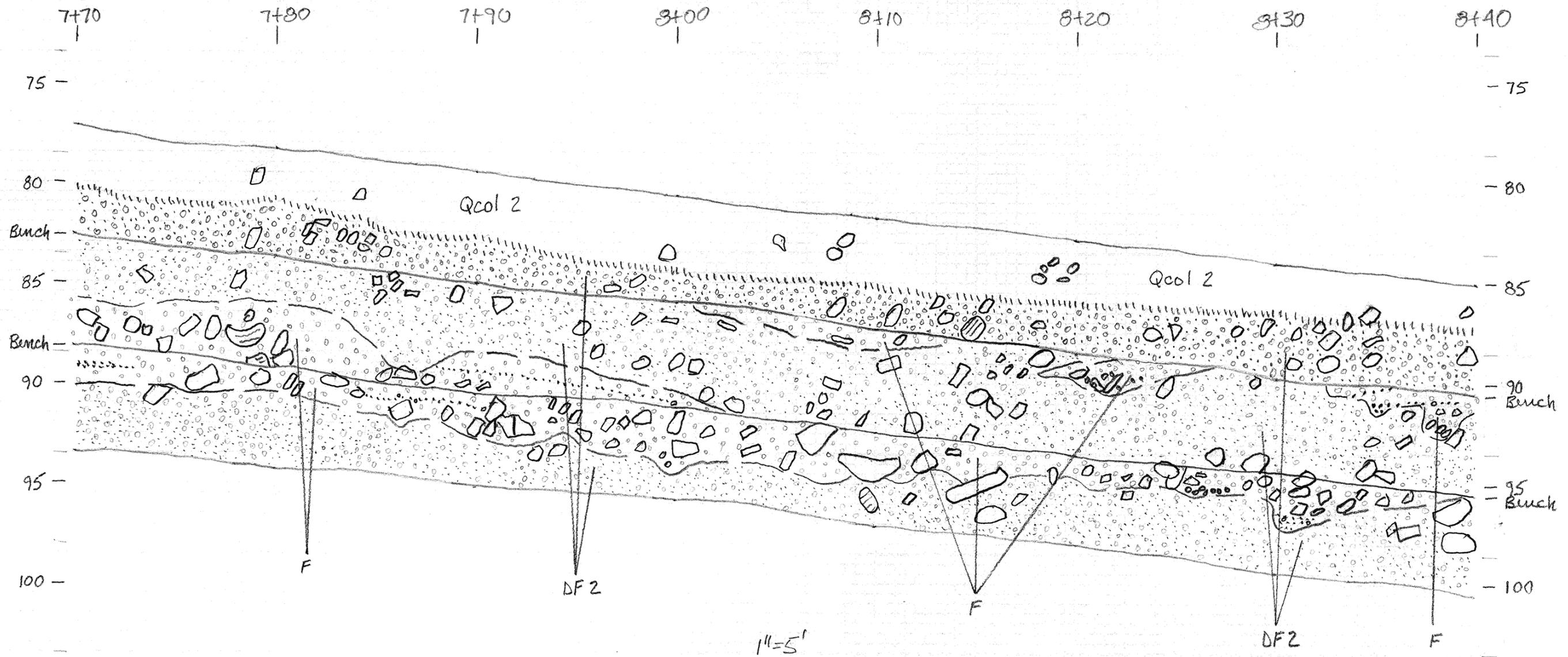


$1'' = 5'$   
 $H = V$   
 N-S

ST-4  
 13-305  
 Lin Yeng Mtn Temple  
 August 2013  
 SH10 of 13

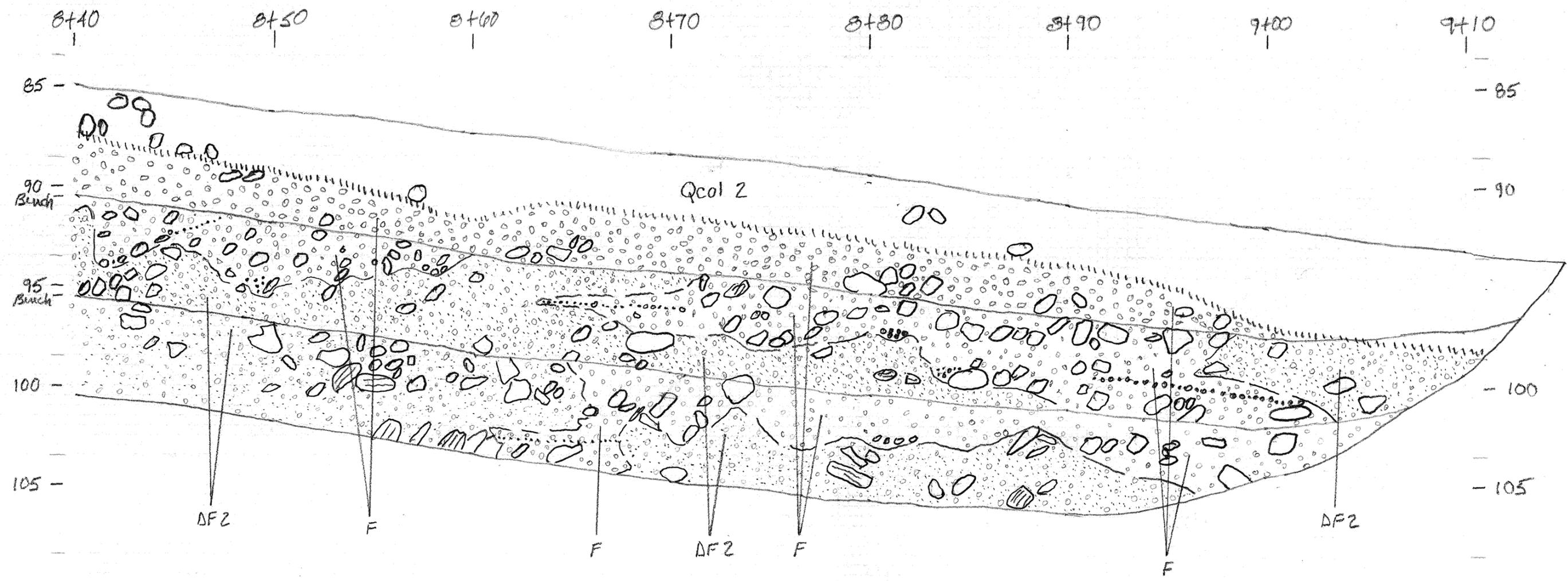


ST-4  
 B-305  
 Lin Yeng Mtn Temple  
 August 2013  
 SH 11 of 13



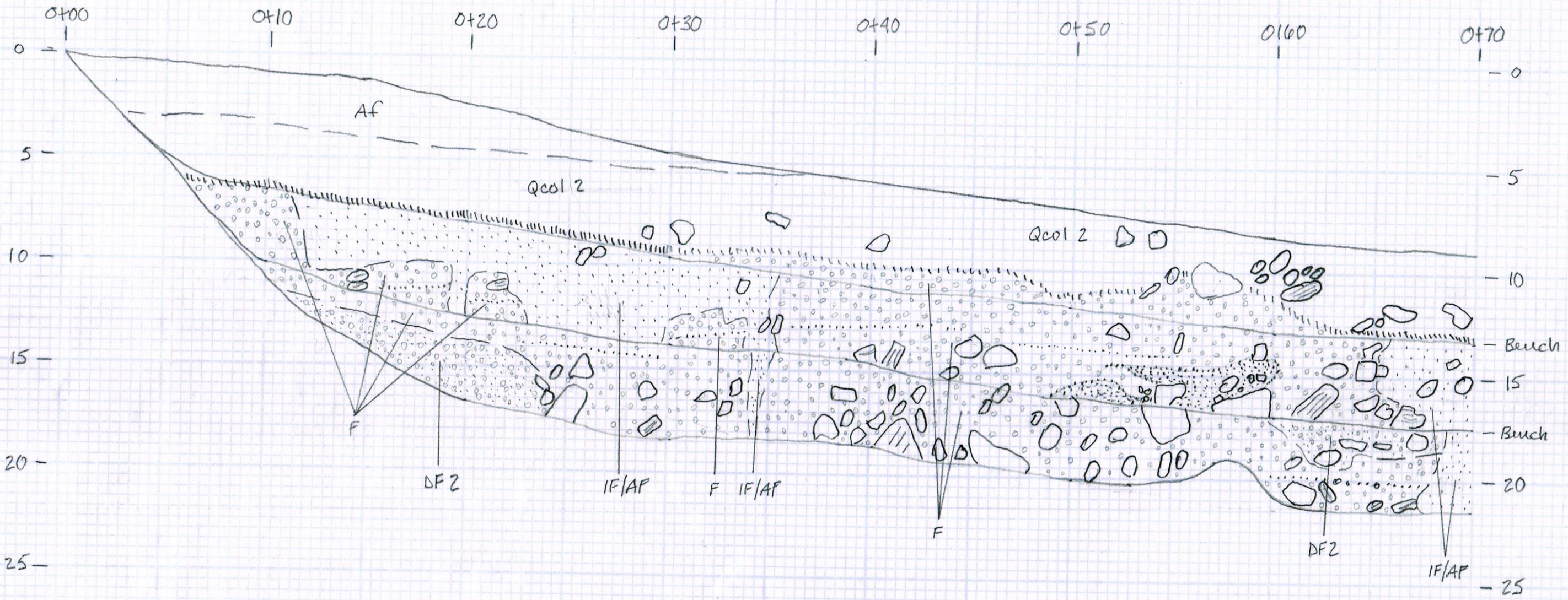
$1'' = 5'$   
 $H = V$   
 N-S

ST-4  
 13-305  
 Lin Yeng Mtn Temple  
 August 2013  
 SH 12 of 13



$1'' = 5'$   
 $H = V$   
 N-S

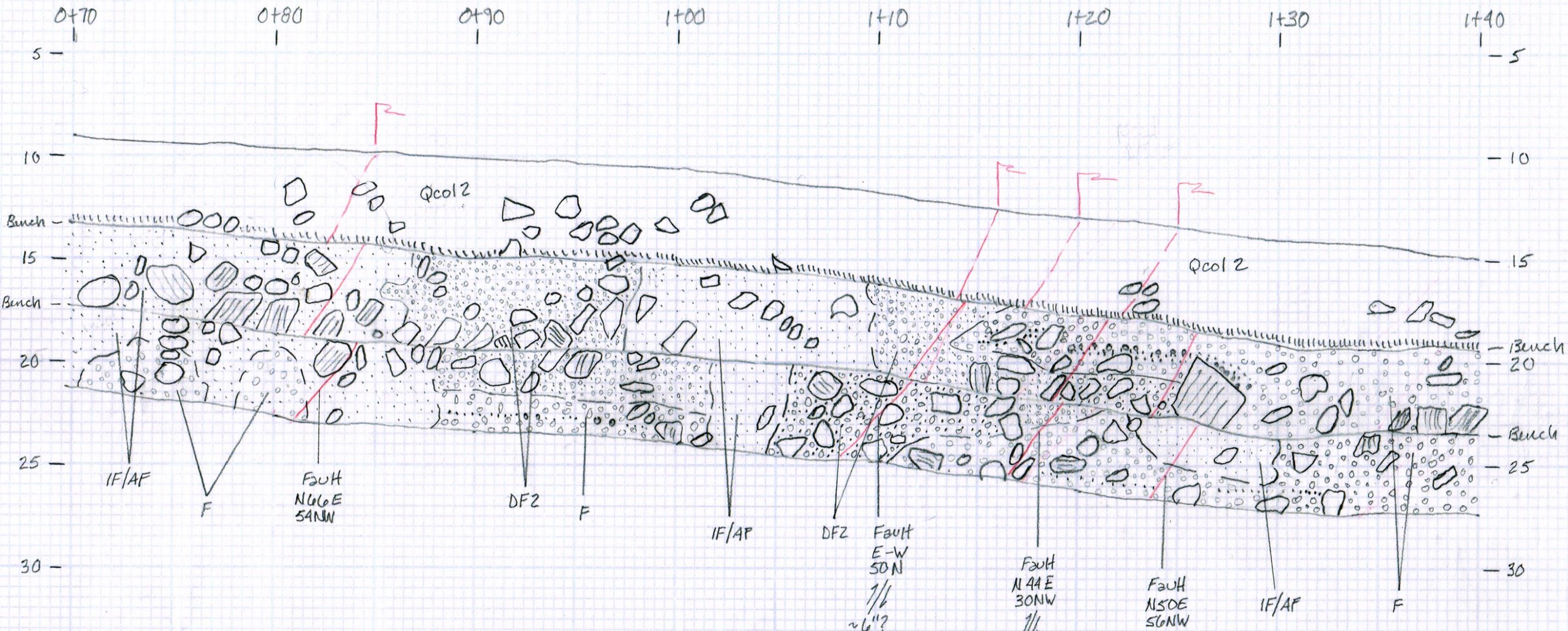
ST-1  
 13-305  
 Lin Yeng Mtn Temple  
 August 2013  
 SK 13 of 13



1" = 5'  
H = V

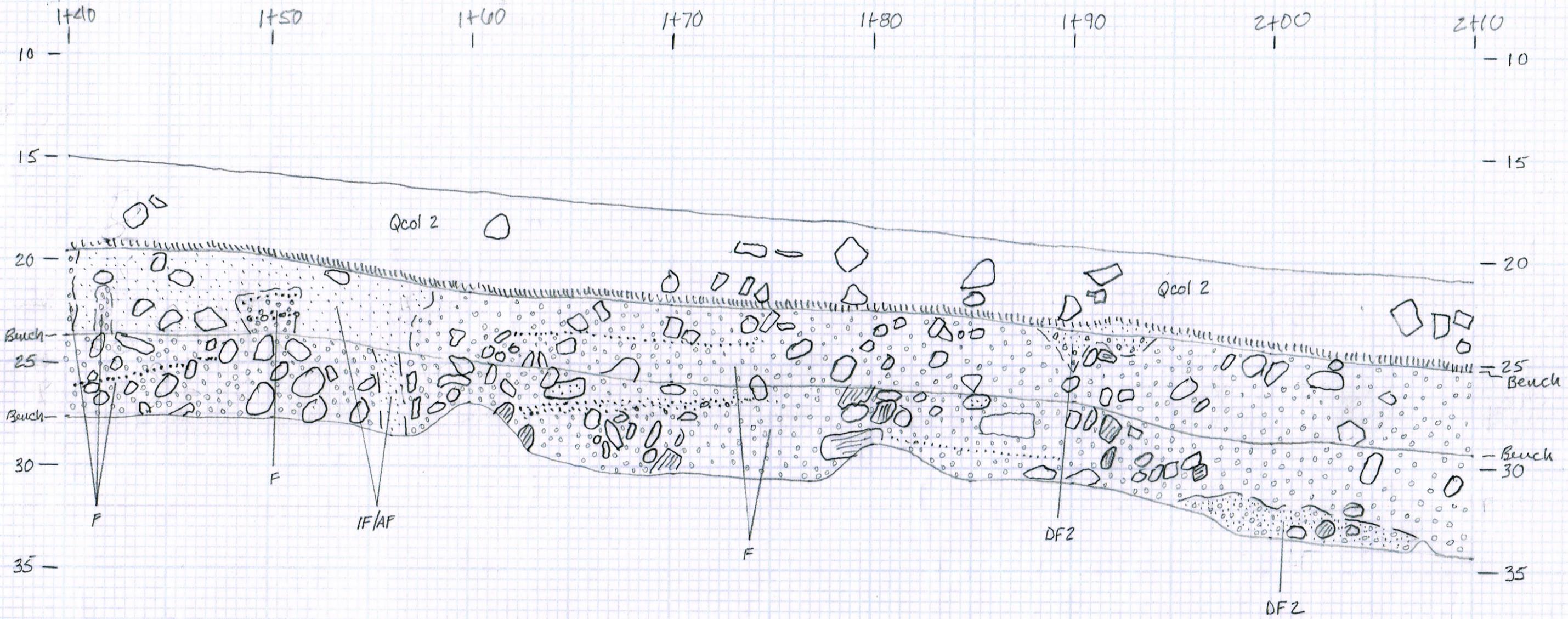
NOSE

ST-5  
13-305  
Ling Yen Mt Temple  
August 2013  
Sh 1 of 5



1" = 5'  
 H = V  
 NOSE

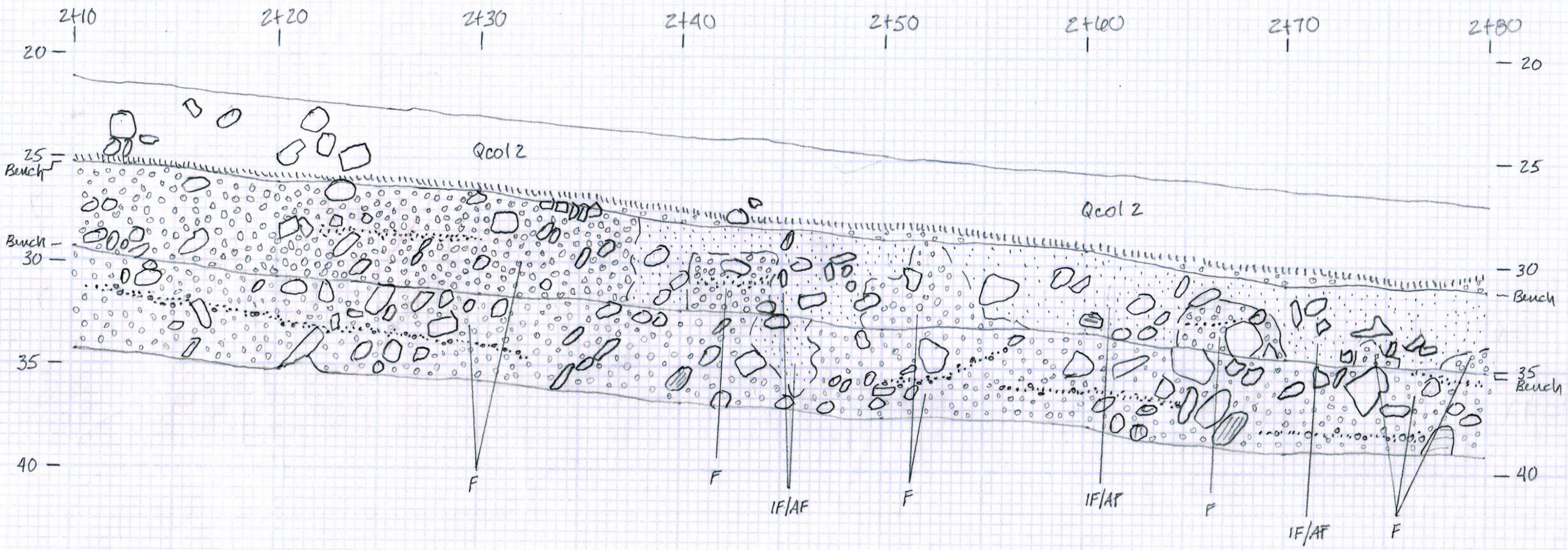
ST-5  
 13-305  
 Ling Yen Mfu Temple  
 August 2013  
 Sh 2 of 5



1" = 5'  
 H = V

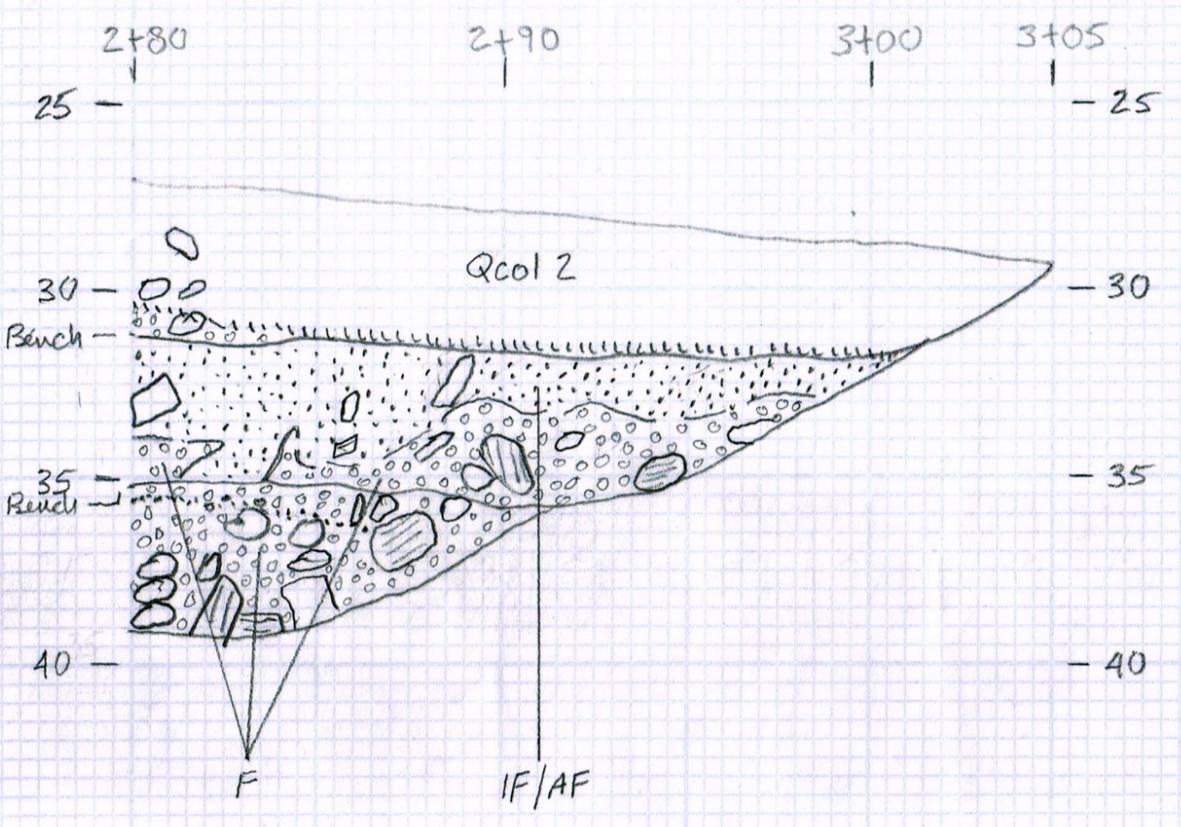
—————  
 NOSE

ST-5  
 Ling Yen Ktu Temple  
 August 2013  
 sh 3 of 5



1" = 5'  
 H = V  
 \_\_\_\_\_  
 NOSE

ST-5  
 13-305  
 Ling Yen Mtn Temple  
 August 2013  
 SH 4 of 5



ST-5  
 13-305  
 Ling Yen Mtn Temple  
 August 2013  
 SLS of S