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INNOVATIVE METHODOLOGY FOR DETECTION
OF
FRACTURE-CONTROLLED SWEET SPOTS
IN THE
NORTHERN APPALACHIAN BASIN
SEMI-ANNUAL TECHNICAL PROGRESS REPORT

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ABSTRACT

In the structure task, we completed reducing the data we had collected from a N-S transect on the east side of Seneca Lake. We have calculated the fracture frequency for all the fracture sets at each site, and constructed modified rose diagrams that summarize the fracture attributes at each site. These data indicate a N-striking fault near the southeastern shore of Seneca Lake, and also indicate NE and ENE-trending FIDs and faults north of Valois. The orientation and existence of the ENE-striking FIDs and faults are thought to be guided by faults in the Precambrian basement. These basement faults apparently were sufficiently reactivated to cause faulting in the Paleozoic section. Other faults are thrust ramps above the Silurian salt section that were controlled by a far-field Alleghanian stress field.

Structure contour maps and isopach maps have been revised based on additional well log analyses. Except for the Glodes Corners Field, the well spacing generally is insufficient to definitively identify faults. However, relatively sharp elevational changes east of Keuka Lake support the contention that faults occur along the east side of Keuka Lake. Outcrop stratigraphy along the east side of Seneca Lake indicates that faults and gentle folds can be inferred from some exposures along Seneca Lake, but the lensing nature of the individual sandstones can preclude long-distance definitive correlations and structure identification. Soil gas data collected during the 2000 field season was reduced and displayed in the previous semiannual report.

The seismic data that Quest licensed has been reprocessed. Several grabens observed in the Trenton reflector are consistent with surface structure, soil gas, and aeromagnetic anomalies. In this report we display an interpreted seismic line that crosses the Glodes Corners and Muck Farms fields. The final report from the subcontractor concerning the completed aeromagnetic survey is included. Prominent magnetic anomalies suggest that faults in the Precambrian basement are located beneath regions where grabens in the Trenton are located. The trend and location of these faults based on aeromagnetics agrees with the location based on FIDs.

These data indicate that integration of aeromagnetic and topographic lineaments, surface structure, soil gas with seismic and well logs allows us to extrapolate Trenton-Black River trends away from confirmatory seismic lines.

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INTRODUCTION

3-D seismic analysis is unquestionably one of the premier methods for obtaining information concerning deep structure, including predictions of enhanced fracture porosity in reservoirs. However, the high cost of 3-D seismic makes it economically unfeasible in many basins with *perceived* marginal gas reserves. However, without some advanced technology like 3-D seismic, the deep structure in many basins (like the Appalachian Basin of New York State) cannot be critically evaluated because available seismic reflection profiles and deep well logs provide insufficient control.

This research project demonstrates a cost-effective alternative to 3-D seismic. The project demonstration is a combination of low-cost, innovative technologies that, when integrated, yield near-3-D quality on a regional scale for identification of fractured reservoir prospects. The study area covers about 760 sq. miles, an area that would cost about \$22 million for 3-D seismic coverage alone. Our project is a fraction of that cost.

The basic premise is that highly productive zones in tight reservoirs are associated with discrete zones of intense fracturing, termed "fracture intensification domains" (FIDs, Jacobi and Fountain, 1996, Jacobi and Xu, 1998). These zones can be identified by integration of surface geology, lineaments, well log data, seismic data and soil gas anomalies. FIDs in the northern Appalachian Basin have been shown to be indicative of fault zones at depth (Jacobi and Fountain, 1996, Jacobi and Xu, 1998). Thus, by identifying and tracing FIDs, we can predict the location of zones of increased fractures in the subsurface.

Because large gas discoveries (estimated 3 bcf/well) have been made recently along fault zones in the New York State portion of the Appalachian Basin, it is important to be able to recognize FIDs. Because of vegetation and surficial deposits, the FIDs cannot be traced continuously in outcrop. In order to trace the FIDs, we have developed an integrated program that involves:

1. surface structure,
2. soil gas analyses,
3. remotely-sensed lineaments,
4. existing (2-D) seismics, and
5. aeromagnetics.

Structural studies on outcrops allow identification of FIDs; then lineaments from aeromagnetic and remotely-sensed data are used to trace the FIDs between outcrops. Soil gas anomalies can confirm that the lineaments are associated with fracturing. Existing well log and seismic data are used to confirm the interpretations. Many of the fault systems in the northern Appalachian Basin can be traced with aeromagnetics because the surface faults are reactivated deep faults that are located in the Precambrian basement.

The study area is located in the northern Appalachian Basin in the Finger Lakes region of central New York State, primarily between Seneca and Cayuga lakes (Figure 1). The target is the Ordovician Trenton/Black River groups, although fractured tight sands above the Trenton also occur in this area. The most prolific gas play in New York State today is the Glodes Corners Road Field, an Ordovician Trenton/Black River play that is located west of Keuka Lake. This field was developed by Columbia Natural Resources (CNR), who estimates that the yield/well is

1.3 bcf. The east-northeast trend of the Glodes Corners Road Field suggests that the Glodes Corners Road Field is located along faults that are reactivated structures related to the older Cambrian Rome Trough, which is assumed to trend approximately east-northeast in regions south of the play (Jacobi et al., 1999). Well logs from the Glodes Corners Road Field indicate a narrow fault zone that increases in stratigraphic offset upsection, increasing to 6 m in the Trenton.

On seismic reflection profiles, The Trenton plays occur along fault zones that appear as narrow (~ 2000') grabens with small regional offset. These grabens are thought to be a result of a combination of:

1. solution collapse,
2. reverse flower structures (along strike-slip faults), and
3. seismic pull-down from the lower velocities associated with dissolution and fault brecciation.

In order to procure and analyze the data necessary for the demonstration project, the integrated research project was divided into seven tasks. These tasks include:

1. Traditional and innovative analyses of fractures (Jacobi),
2. Stratigraphy/well log analyses (Jacobi and Loewenstein),
3. Lineaments (Jacobi),
4. Soil Gas Analyses (Fountain),
5. Seismic Data Acquisition and Interpretation (Loewenstein and Jacobi),
6. Advanced Seismic Analyses (Hart), and
7. Aeromagnetic Survey and Analyses (deRidder).

During the second reporting period, we made significant progress in all tasks, as outlined in the "Results and Discussion" section.

EXPERIMENTAL

1) FRACTURE ANALYSES SUBTASK

Jacobi and assistants used two different methods to collect outcrop structural data during the first field season. They collected most of the structural data along scanlines and a relatively small amount by an abbreviated methodology described below. In the scanline methodology, which is detailed in Jacobi and Zhao (1996a,b) and Jacobi and Fountain (1996), Jacobi and assistants laid out the scanline in a direction to "capture" as many fractures as possible. They then constructed a sketch map in their field notebooks that showed the location of the scanline and the nail marking the end of the scanline in relation to the pertinent geographical features. They indicated the general site location in the field by tying an annotated ribbon to an overhead tree. The sketch map of the site also includes sufficient geographical markers to be able to identify the site location on the topographic base. They annotated the site of the scanline on the enlarged topographic map base. Jacobi and students then measured the orientation of the scanline and collected data on nine attributes of every fracture that crossed the scanline, including:

1. Distance along the scanline where the fracture intersects,
2. Strike and dip of the fracture,
3. Exposed length of the fracture,
4. Exposed height of the fracture,
5. Abutting relationships (with other fractures),
6. Top and basal abutting relationships (primarily abutting some sedimentary unit),
7. Character of fracture trace (e.g., straight, curvy),
8. Decorations on the fracture face, and
9. Offset along the fracture.

Jacobi and assistants entered all the site data and the fractures data in Excel data spreadsheets (Appendix 1 for sites, Appendix 2 for fracture data). For each site, the next step is to separate the fractures into different fracture sets on the basis of the orientation, character and abutting relationships of the individual fractures. After separating the fracture sets, they plan to calculate the fracture frequency for each set from the fracture intercepts on the scanline. As most fractures are very steeply dipping ($80^{\circ}+$), modified rose diagrams can be used to portray the results. In these rose diagrams, fracture frequency is displayed in the top half of the diagram. We generally show three orders of magnitude on the diagram as successively larger concentric circles, with the inner circle representing 0.01 fractures/m, the middle ring representing 0.1 fracture/m, and the outer ring representing 1 fracture/m. Thus, long petals indicate a relatively high number of fractures, as did the old rose diagrams. The advantage of this modified diagram is that it does not promulgate a potential sampling bias where a scanline is parallel to a fracture set. In the traditional rose diagrams, the raw number of fractures would be underrepresented for the set that paralleled the scanline. We use the lower half of the rose diagram to indicate other features of the fracture sets, commonly either abutting relationships, or length (which is a proxy for abutting relationships). The longest petals in the lower half indicate the master set; the next longest petals indicate the set that abuts the master set, but that is itself master to another fracture set, which is portrayed by even shorter petals.

Advanced analysis techniques, including fractal analysis and geostatistics (see Jacobi et al., 2001, for a review) will be carried out where these techniques will add to the understanding of fracture development and the significance of fractures for identifying deep structure. However, from the first field season, the fracture data appears to be very robust, so these techniques may not be necessary. The extent of outcrop was far greater than we had expected, and so the need for these special techniques that we developed especially for areas with limited outcrop, may not be necessary.

Jacobi and assistants also used an abbreviated method to collect structure data at a few sites. At these sites, Jacobi and assistants identified the fracture sets in the outcrop, and measured the spacing among a minimum of three fractures for each systematic fracture set. They also collected abutting and length/height information. These data were also portrayed on the same modified rose diagrams.

STRATIGRAPHY/WELL LOG ANALYSES SUBTASK

Jacobi and Loewenstein will provide the project with 1) structure contours on bedrock marker beds that outcrop in the study area, and 2) subsurface structure contour maps based on distinctive units identified in well logs. Such maps shall aid in determining fault locations and offset. The construction of these maps is funded by an ongoing NYSERDA project. The contouring will be accomplished by a subroutine package in Geographix. The stratigraphic tops picked from well logs will follow the industry practice for recognizing each unit top; van Tyne and Foster's (1979) study illustrates such picks.

Jacobi and assistants will provide geological cross-sections across prominent surface structure where outcrops of marker units allow such constructions. The elevations of the marker units will be determined from topographic maps, and/or from altimeters, and/or from surveying from a known elevation.

LINEAMENTS SUBTASK

Jacobi and Loewenstein will combine lineaments recognized in Landsat images and in 7.5' topographic quadrangle maps. They will integrate Earthsat's (1997) pick of Landsat lineaments in the demonstration area with a reanalyzed Landsat data set via ENVI. They will also analyze 7.5' topographic maps for lineaments following Jacobi and Fountain's (1996) methodology.

Pearson, deRidder and Johnson, Inc. will contribute an analysis of digital elevation data available from USGS for the study area. This analysis will include edited topography, a high-pass of the topography, and a horizontal gradient of the high-pass of the topography. We will compare lineaments observed in these gradient maps to those lineaments observed on the Landsat and 7.5' quadrangle maps.

The resulting series of maps of the demonstration area will include 1) Earthsat's Landsat lineament map, 2) our interpretation of lineaments from the Landsat data, 3) lineaments from 7.5' topographic quadrangle maps, 4) lineaments from gradient maps of Pearson, deRidder and Johnson, Inc. and 5) a map integrating all 4 data sets. We will compare the lineaments with the

preliminary FID map. Where coincidence occurs between lineaments and FIDs observed in outcrop, we will extend the observed FID along the lineament. After the first iteration, we will compare the lineament/FID map with the soil gas analyses discussed below.

SOIL GAS ANALYSES

Soil gas surveys will be conducted along primarily north-south profiles, following existing seismic lines, and the general techniques and rationale of Jacobi and Fountain (1996) and Fountain and Jacobi (2000). In this research plan, traverses are conducted along the edge of roads and samples are collected at a distance of 3 to 10 meters from the road, depending on road construction, to avoid the roadbed fill material.

Samples are obtained by driving a stainless steel probe to a depth of 60 cm using a hand-held sledge hammer. Twenty cubic centimeters of air, slightly more than one probe volume, is withdrawn from the probe and discarded with an air tight syringe to purge atmospheric air from the probe. An additional 60 cc of air is then withdrawn with the syringe and injected directly into a gas chromatograph (GC) equipped with a flame ionization detector for analysis (a Century OVA 128 GC). Gas enters the probe through an array of holes approximately 5 cm above the tip; the holes are covered by a loose sliding collar that minimizes plugging during insertion.

Samples are collected at 10 m intervals. This distance is somewhat arbitrary; however, the results of over 10,000 analyses established that most anomalies are more than 10 m wide (Fountain and Jacobi, 2000), confirming that a 10 m spacing will detect most anomalies.

Linear response of the gas chromatograph is determined by analysis of standard gasses at the start of each day, after four hours of analyses, and at the end of each day. Samples are analyzed in duplicate every 10 samples.

All samples with 10 ppm or greater total organic vapor content are returned to the laboratory for analysis on a laboratory gas chromatograph to determine ethane/methane ratios. The GC is calibrated daily for response and elution times using standard gas mixtures.

SEISMIC DATA ACQUISITION, REPROCESSING, AND INTERPRETATION

Loewenstein will purchase available seismic lines and subcontract with seismic processors to reprocess the records where necessary. He will evaluate the reprocessing effort and be especially cognizant of statics problems. If such problems appear to exist, he will request that the processor reprocess any section that may exhibit such problems. Loewenstein and Jacobi will interpret the seismic lines for prominent stratigraphic reflectors and faults. Where recognizable, they will pick the reflectors that represent the Tully, Onondaga, Trenton, Black River and Precambrian/Cambrian contacts. They will use accepted industry practices for the reflector recognition (e.g., Jacobi and Fountain, 1996; Jacobi et al., 2000). The interpretation of the 2-D seismic will be displayed along the seismic line in depth (time) sections that show potential faults. These depth displays will be integrated with the surficial FID/soil gas/lineament maps in two ways: 1) the location of surficial FIDs/soil gas anomalies and lineaments will be shown

above the depth section for ease in spatial correlation, and 2) the locations of deep structure (faults) as interpreted from the seismic line, will be entered in Geographix so that their locations can be compared in map view with the locations of the surficial FIDs/soil gas anomalies and lineaments.

ADVANCED SEISMIC ANALYSES

The seismic expression of faults is a function of several variables, including the fault offset and the frequency content of the seismic data. On migrated seismic lines, faults are most easily recognized by reflection offsets, changes in dip, changes in amplitude, etc. Subtle faults are most easily detected in 3-D seismic volumes by deriving and analyzing "horizon" attributes, such as dip, edge detection and azimuth, or "coherency" attributes (e.g., Hart et al., 1996). Additionally, complex trace attributes (e.g., instantaneous frequency, reflection strength) can be useful for fault detection. In the manner described above, Hart will analyze critical sections of the seismic profiles procured in the preceding subtask.

AEROMAGNETIC SURVEY AND ANALYSES

Aeromagnetic prospecting is a powerful methodology that can define the basement fault block patterns with detail on a basinal scale. Pearson, deRidder and Johnson, Inc. will acquire, process, and interpret an aeromagnetic survey of the study area. Using both widely available techniques and proprietary methods, Pearson, deRidder and Johnson, Inc. and Jacobi will delineate basement-related structural elements that serve as bounding structures on intra-basement lithology blocks, supra-basement structural relief, and zones of strike-slip faulting that may be associated with fracture swarm development. In addition, the proprietary profile data interpretation tool, STARMAG, licensed by Texaco exclusively to Pearson, deRidder and Johnson, Inc., will be amended, using local constraints, to allow for improved models of magnetic lineaments related to fracture swarms.

Specifications shall be as follows:

Survey area:	710 square miles
Line spacing:	1/3- mile N-S x 1-mile E-W
Line mileage:	3,600 line miles
Ground clearance:	500' above ground level, or as to be decided
Acquisition subcontractor:	Airmag Surveys, Inc., Philadelphia, PA

The data will be processed using an equivalent source method, which compensates for elevation differences at line intersections, taking into account anomalous vertical magnetic gradients. Both profile and grid based interpretation methodologies will be employed to derive the maximum information content of the data set. The resulting maps can be used to infer lineaments related to faults in the basement, and can, in some cases, be used to determine approximate amount of offset on basement. Jacobi and Loewenstein will integrate the aeromagnetic lineaments with the FID/lineament/soil gas maps and seismic attribute studies. Spatial coincidence among aeromagnetic lineaments and the FID/lineament/soil gas/seismic line fractures (seismic attribute)

maps will be taken as defining probable fault systems that affected the entire sedimentary section, including the Ordovician targets.

RESULTS AND DISCUSSION

FRACTURE ANALYSES SUBTASK

Jacobi and assistants measured the nine characteristics of over 2300 fractures at 149 sites this past field season. The site log is displayed in Appendix A. Jacobi and assistants separated the scanline data into fracture sets (Appendix B). They then calculated the fracture frequency for each set at each site (Appendix C) and constructed modified rose diagrams (Figure 3) that display the fracture frequency and the abutting relationships for each site (Appendix D). Jacobi then constructed maps that display the rose diagrams (Figures 4-26).

The base maps for the rose diagram displays were constructed in ARC/INFO. Streams were from the COUGIR website, and were found to match the streams on USGS 7.5' topographic maps generally quite well (with less than a [topo-sheet] line-width error anywhere in the quadrangle when displayed at full scale). In contrast, the roads from the county transportation maps at the same website were very poorly digitized. We have modified the more severe problems. After digitizing the sites in ARC/INFO, we transferred the maps to Adobe Illustrator in order to paste the rose diagrams on the base maps.

Most of the fractures that Jacobi and associates measured were located along a N-S transect along the eastern shore of Seneca Lake (Figure 2). Jacobi and associates found that the eastern shore of Seneca lake can be divided into two regions that display different fracture attributes. Although both regions share most fractures sets, the two regions have different prominent fractures in terms of length, frequency and abutting characteristics. The area south of Valois (Valois is located in the southern part of Dundee quadrangle, Figure 19) exhibits primarily NNW and N to NNE-striking master fractures and FIDs. For example, inspection of the rose diagrams in the Burdett Enlarged Area "B" (Figure 6) reveals that at each site in Area "B", the northerly striking fractures have a higher frequency than the ENE and WNW striking fractures. At both RDJ 74 and RDJ 74A+B, the fracture frequency of the northerly-striking fracture sets is about an order of magnitude greater than that of the ENE-striking set. Similarly, in Burdett Enlarged Area "D" (Figure 8), the northerly-striking fractures have nearly an order of magnitude greater frequency than the easterly striking fractures at site 1B. At site 4 (Figure 8), the northerly-striking fractures are the masters, although the fracture frequency of the N-striking and easterly striking sets is comparable. In contrast, in the region of Valois and to the north, master fractures and FIDs commonly strike ENE or WNW. For example, in Dundee Enlarged Area "B", at sites 8 and 9 the easterly striking fractures have an order of magnitude greater frequency than do the northerly striking fractures, even though the master set is northerly striking. This contrast suggests that along the Seneca eastern shore, the ENE-trending structures, such as the Iapetan reactivated faults, occur in the region near Valois (and sporadically northward). Along the shore of Seneca Lake south of Valois, N- to NNW-striking, CSD-related faulting is probable.

In the area north of Valois, in addition to the ENE-striking master fractures, NNW-striking cross-strike master fractures are observed, as well as a N-striking set of fractures. The N-striking set is

not ubiquitous; rather it is found only in certain zones. At several of the sites, the northerly-striking fractures exhibited strike slip motion, displacing the ENE-striking fractures a few cm (Figures 24-26). The most prominent NNW-striking fractures that display offset are at site 62 (Figure 25), where hydrocarbon and water seeps along observable NNW-striking faults occur in a road cut. It is thus probable that in this area, northerly-striking faults, as well as easterly-striking faults occur at depth.

In the far northern part of the study area, near Ovid, Jacobi and assistants found NE-striking master fractures and thrust faults. These trends were surprising, since Engelder and Geiser (1980) had shown generally ENE-striking "strike-parallel" fractures. However, some of the prominent magnetic gradients in the study area strike as northerly as N45E (see aeromagnetic task). Thus, this NE-striking FID and fracture set may not be the predicted ENE-striking Alleghanian strike-parallel fractures that are related to a far-field Alleghanian stress field. Rather, the orientation and location of these NE-striking faults, FIDs, and master fractures may be controlled, in part, by reactivated fault systems in the Precambrian basement that give rise to the aeromagnetic anomalies. In such a case, a local stress field, "set up" by the reactivated faults, controls the location and trend of the FIDs. Elsewhere, faults in the Precambrian basement were reactivated in the Trenton/Black River, and resulted in the porosity zones that are presently targets in NYS. If such is the case here, the NE-striking FIDs indicate the presence of Trenton structures at depth.

STRATIGRAPHY/WELL LOG ANALYSES SUBTASK

The subcontractor, Quest Energy, has collected available well log and completion information for Trenton and deeper wells from regional offices of the New York State Department of Environmental Conservation (well locations shown in Figure 28). Log picks have been entered into a Geographix database from which structural and isopach contours were generated. Any anomalous values were checked and corrected as needed. The database and map set is updated episodically as previously confidential well logs become available. Data entry and data quality control are ongoing.

The subcontractor, Quest Energy, constructed new structure contour and isopach maps (Figures 27-45), based on his updated database. These maps include structure contour maps of the Lockport, Trenton and Black River formations, and isopach maps of the Onondaga to Lockport interval, the Lockport to the Trenton interval, and the Trenton to Black River interval. Figures 28 to 33 show the regional Finger Lakes trends, whereas Figures 34 to 39 focus on the study area, and Figures 40 to 45 focus on Glodes Corners and Muck Farms fields. All maps were contoured by Geographix, and interpreted by Quest and Jacobi.

The regional Lockport structure contour map (Figure 28) is fairly structurally featureless, partly because of a sparsity of well logs and partly from the smoothing function in the contouring routine. The exception is in the Glodes Corners Field, where a relatively large number of wells provide good control. Here one well displays a structurally low Lockport. The regional Trenton structure contour map (Figure 29) also displays a low along part of the Glodes Corners Field, consistent with the seismic and well log data that suggest that the field is located in a dissolution/dolomitized, fault brecciated graben. The Trenton map also shows an anomalous

Trenton depth west of the southern end of Cayuga Lake. Far more instructive are the regional isopach maps (Figure 31-34) which show anomalous trends on the west side of Seneca Lake, the east side of Keuka Lake, in addition to the structure in the Glodes Corners Field area (west of Keuka Lake). That all three isopach maps show these anomalies suggests that the fault systems with dissolution extend, in some cases, high into the section. These same features are observed in the more detailed focus maps (Figures 34-45).

Jacobi and Smith identified and measured the stratigraphy and elevation of stratigraphic markers in the Upper Devonian outcrops in a N-S transect along the eastern shore region of Seneca Lake. Jacobi and Smith measured the dip of turbidite beds exposed in extensive outcrops, especially along the lakeshore, where outcrops of 50 m or more are not uncommon. Although they attempted a detailed stratigraphy in the turbidities, they found that the individual sandstones, and even the sandstone packets, appear to lens and change character locally from south to north. The consequent lack of recognizable markers over relatively long distances precluded detailed structural control from detailed stratigraphic correlations in the southern part of the transect.

LINEAMENTS SUBTASK

The UB Rock Fracture Group (Jacobi and assistant) has begun analyzing the topography of the study area in order to identify lineaments quantitatively by examining both the magnitude and the orientation of the slopes. The program we are using is a subroutine in ARC/VIEW. Examples are shown in Figures 46-49. The only strong ENE-striking anomalous gradient occurs east of Valois (at yellow arrow in Figure 46). This trend is parallel and coincident with the maximum gradient in the aeromagnetic anomaly and is located where prominent ENE-striking FIDs occur. In the Ovid quadrangle, the prominent inverted U-shaped anomalous gradients are assumed to reflect topographic benches controlled by sandstone packets and till moraines.

SOIL GAS ANALYSES

Results of the soil gas analyses collected in the 2000 field year were reported in the previous progress report.

SEISMIC DATA ACQUISITION, REPROCESSING, AND INTERPRETATION

Seismic Data Acquisition and Processing

All of the seismic data for the study has been processed. The data consist of the entire non-proprietary Vibroseis lines that have been licensed by the subcontractor, Quest. The generalized line locations are shown on Figure 27. Lines SCNYRS-1C, SCNYRS-6 and SCNYRS-7 were acquired in 1984 and processed for this study by Elite Seismic Processing ("EPS"). Line EGI-004-00 was acquired by Bay Geophysical as part of a group shoot contracted by Evans Geophysical, Inc. The line was shot in 2001 and was processed for this study by Sterling Seismic Services ("Sterling"). Both EPS and Sterling are experienced processors of Appalachian Basin seismic data. SEG-Y data for all of the seismic has been sent to Hart for analysis. Approximately 90 km of seismic data have been reprocessed for the project.

The Glodes Corners Road and Muck Farms Pools are the type areas for our study. The fields consist of twelve (12) and four (4) producing wells respectively. While there have reportedly been gas shows and completion attempts made in several zones in the Trenton and Black River, commercial production is limited to an approximately 10 m thick fractured dolostone unit at the top of the Black River. Figure 50 is an interpretation of a portion of EGI-004-00 across the Glodes Corners Road Pool. Faulting at the Trenton and Black River reflectors is evident, as is faulting at the assumed top of the crystalline basement. Apparent dips on intrabasement reflectors may indicate a link to Grenville structures. Figure 51 is a portion of line EGI-004-00 across the Muck Farms Pool. The data here exhibit structural elements similar to those at Glodes Corners Road. Figure 52 illustrates another Trenton graben at an undisclosed location, and illustrates that several additional grabens exist in the study area.

ADVANCED SEISMIC ANALYSES

After the award of the grant, Dr. Hart moved to McGill University. The subcontract had to be renegotiated between McGill and SUNY at Buffalo. The contract was signed during this reporting period. As a result, Hart only began advanced processing of the data this Spring.

Hart received seismic data early in the Spring of 2001. Prior to that, Hart had focused his efforts on learning and evaluating the software he plans to use, and studying analog reservoirs elsewhere. Hart is now using Geographix interpretation software (the same software used by Quest), whereas previously Hart worked with Landmark products.

Structural and stratigraphic interpretations of four lines of seismic data (lines SCNYRS1C, SCNYRS6, SCNYRS7, and EGI004) are well underway. As per previous studies (e.g., Hart, 1996) we are finding that evaluation of complex trace attribute displays (instantaneous frequency, instantaneous phase, reflection strength) are valuable tools for assisting in locating faults accurately (Figure 53).

In addition to Hart's traditional analyses, Hart is also seeking to evaluate the utility of two other software packages for evaluating the Trenton-Black River play:

- a) SeisScape. This product displays seismic data as a 3 dimensional terrain-like surface and illuminates it to produce complex lighting and shading effects (Figure 54). A full description of the product is available at the company's website (www.seisscape.com). Hart's hope is that this software may allow detection of subtle structures that might otherwise go unnoticed.
- b) Hampson-Russell. Hart hopes to use this company's "Strata" package in order to invert the 2-D data. The result will be an acoustic impedance line that, we hope, may allow us to distinguish tight limestones from porous dolomites. Hart's success with this product will depend upon his ability to integrate digital wireline log data (sonic and density logs). To date, he has been unable to locate data of this type, and he is investigating ways around this problem (e.g., using neural networks to create "pseudo" sonic and density logs).

AEROMAGNETIC SURVEY AND ANALYSES

Pearson, deRidder and Johnson, Inc. acquired and processed an aeromagnetic survey of the study area. Their final report is included as proprietary Appendix 5. The Total Magnetic Intensity with the IGRF removed is shown in Figure 55.

The magnetic gradients displayed in Figure 55 (and the other figures in the Proprietary Appendix 5) are prominent, and are in agreement in general with older data sets. The distinctive N-S trend in the western part of the survey area indicates the trend of a major fault in the Precambrian basement. Lesser N-striking gradients border both sides of Seneca Lake, supporting the contention from our structure data that an approximately N-striking fault follows the southeastern shore of Seneca Lake. Similarly, the NE-striking gradients support the hypothesis, proposed in the structure section, that the NE-striking FIDs indicate basement structure. One of the prominent NE to ENE-striking gradients occurs where the structure data indicate a relatively large number of ENE to NE-striking FIDs.

CONCLUSIONS

During the second six-month reporting period, we collected and processed data necessary to keep the project on schedule. In structure, we completed analyzing a N-S transect east of Seneca Lake that indicated a N-striking fault near the southeastern shore of Seneca Lake, and indicated NE and ENE-trending FIDs and faults north of Valois. The ENE-striking FIDs and faults are thought to be controlled by basement faults. Structure contour maps based on well log analyses have been constructed and interpreted. Because of the sparsity of deep wells, only some indications have been found of Trenton faults. Seismic data have been reprocessed. Several grabens observed in the Trenton reflector are consistent with surface structure, soil gas, and aeromagnetic anomalies. The aeromagnetic survey is completed and the data are processed. Prominent magnetic anomalies suggest that faults in the Precambrian basement are located beneath regions where grabens in the Trenton are located.

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FIGURE CAPTIONS

- FIGURE 1. Location map of study area.
- FIGURE 2. Location map for the year 2000 field campaign.
- FIGURE 3. Explanation of modified rose diagrams used in this report.
- FIGURE 4. Burdett 7.5' Quadrangle Index Map. Boxed Areas boxed in dashed red lines indicate areas of enlargement in the following figures. For location of quadrangle, see Figure 2.
- FIGURE 5. Burdett enlarged area "A", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 6. Burdett enlarged area "B", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 7. Burdett enlarged area "C", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 8. Burdett enlarged area "D", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 9. Reading Center 7.5' Quadrangle Index Map. Boxed Areas boxed in dashed red lines indicate areas of enlargement in the following figures. For location of quadrangle, see Figure 2.
- FIGURE 10. Reading Center enlarged area "A", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 11. Reading Center enlarged area "B", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 12. Lodi 7.5' Quadrangle Index Map. Boxed Areas boxed in dashed red lines indicate areas of enlargement in the following figures. For location of quadrangle, see Figure 2.
- FIGURE 13. Lodi enlarged area "A", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 14. Lodi enlarged area "B", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 15. Lodi enlarged area "C", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 16. Lodi enlarged area "D", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 17. Lodi enlarged area "E", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 18. Lodi enlarged area "F", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 19. Dundee 7.5' Quadrangle Index Map. Boxed Areas boxed in dashed red lines indicate areas of enlargement in the following figures. For location of quadrangle, see Figure 2.
- FIGURE 20. Dundee enlarged area "A", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 21. Dundee enlarged area "B", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.

- FIGURE 22. Ovid 7.5' Quadrangle Index Map. Boxed Areas boxed in dashed red lines indicate areas of enlargement in the following figures. For location of quadrangle, see Figure 2.
- FIGURE 23. Ovid enlarged area "A", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 24. Ovid enlarged area "B", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 25. Ovid enlarged area "C", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 26. Ovid enlarged area "D", modified rose diagrams. For explanation of modified rose diagrams, see Figure 3. For location of map, see Figure 4.
- FIGURE 27. Well spot base map. Map shows locations of Trenton and deeper wells. Green lines indicate location of seismic lines licensed to Quest for this project.
- FIGURE 28. Lockport regional structure contour map. Contour interval 50 ft. Map based on Trenton and deeper wells that have values posted in blue.
- FIGURE 29. Trenton regional structure contour map. Contour interval 50 ft. Map based on Trenton and deeper wells that have values posted in blue.
- FIGURE 30. Black River regional structure contour map. Contour interval 50 ft. Map based on Trenton and deeper wells that have values posted in blue.
- FIGURE 31. Onondaga-Lockport regional isopach map. Contour interval 25 ft. Map based on Trenton and deeper wells that have values posted in blue.
- FIGURE 32. Lockport-Trenton regional isopach map. Contour interval 25 ft. Map based on Trenton and deeper wells that have values posted in blue.
- FIGURE 33. Trenton-Black River regional isopach map. Contour interval 25 ft. Map based on Trenton and deeper wells that have values posted in blue.
- FIGURE 34. Lockport structure contour map of the study area. Contour interval 20 ft. Map based on Trenton and deeper wells that have values posted in blue.
- FIGURE 35. Trenton structure contour map of the study area. Contour interval 20 ft. Map based on Trenton and deeper wells that have values posted in blue.
- FIGURE 36. Black River structure contour map of the study area. Contour interval 20 ft. Map based on Trenton and deeper wells that have values posted in blue. The curvy contours in the Glodes Corners area (west of Keuka Lake) are consistent with an ENE-trending graben.
- FIGURE 37. Onondaga-Lockport isopach map of the study area. Contour interval 20 ft. Map based on Trenton and deeper wells that have values posted in blue. The curvy contours in the Glodes Corners area (west of Keuka Lake) are consistent with an ENE-trending graben.
- FIGURE 38. Lockport-Trenton isopach map of the study area. Contour interval 20 ft. Map based on Trenton and deeper wells that have values posted in blue. The curvy contours in the Glodes Corners area (west of Keuka Lake) are consistent with an ENE-trending graben.
- FIGURE 39. Trenton-Black River isopach map of the study area. Contour interval 20 ft. Map based on Trenton and deeper wells that have values posted in blue.
- FIGURE 40. Lockport structure contour map of the Glodes Corners Field area. Contour interval 10 ft. Map based on Trenton and deeper wells that have values posted in blue. The

curvy contours in the Glodes Corners area (west of Keuka Lake) are consistent with an ENE-trending graben.

- FIGURE 41. Trenton structure contour map of the Glodes Corners Field area. Contour interval 10 ft. Map based on Trenton and deeper wells that have values posted in blue. The curvy contours in the Glodes Corners area (west of Keuka Lake) are consistent with an ENE-trending graben.
- FIGURE 42. Black River structure contour map of the Glodes Corners Field area. Contour interval 10 ft. Map based on Trenton and deeper wells that have values posted in blue. The curvy contours in the Glodes Corners area (west of Keuka Lake) are consistent with an ENE-trending graben.
- FIGURE 43. Onondaga-Lockport isopach map of the Glodes Corners Field area. Contour interval 10 ft. Map based on Trenton and deeper wells that have values posted in blue. The curvy contours in the Glodes Corners area (west of Keuka Lake) are consistent with an ENE-trending graben.
- FIGURE 44. Lockport-Trenton isopach map of the Glodes Corners Field area. Contour interval 5 ft. Map based on Trenton and deeper wells that have values posted in blue. The curvy contours in the Glodes Corners area (west of Keuka Lake) are consistent with an ENE-trending graben.
- FIGURE 45. Trenton-Black River isopach map of the Glodes Corners Field area. Contour interval 2 ft. Map based on Trenton and deeper wells that have values posted in blue. The curvy contours in the Glodes Corners area (west of Keuka Lake) are consistent with an ENE-trending graben.
- FIGURE 46. Standard Deviations of topographic slopes in the Lodi 7.5' topographic quadrangle. The yellow arrow indicates an ENBE-striking lineament.
- FIGURE 47. Orientation of topographic slopes in the Lodi 7.5' topographic quadrangle.
- FIGURE 48. Standard Deviations of topographic slopes in the Ovid 7.5' topographic quadrangle.
- FIGURE 49. Orientation of topographic slopes in the Ovid 7.5' topographic quadrangle.
- FIGURE 50. Interpretation of a portion of seismic line EGI-004-00 across the Glodes Corners Road Pool.
- FIGURE 51. Interpretation of a portion of seismic line EGI-004-00 across the Muck Farms Pool.
- FIGURE 52. Interpretation of a portion of seismic line that illustrates another Trenton graben at an undisclosed location.
- FIGURE 53. Sample seismic transects showing faulting at the Trenton-Black River level. Sample seismic transects showing faulting at the Trenton-Black River level. Top left: amplitude display. Top Right: instantaneous frequency. Lower left: instantaneous phase. Lower right: Instantaneous frequency.
- FIGURE 54. SeisScape display of faulting at the Trenton-Black River level. Amplitudes in this display are both color coded and displayed in positive (peaks) and negative (troughs) relief. The scene may be color-coded to enhance subtle changes.
- FIGURE 55. The total magnetic intensity (with the IGRF removed) map of the study area.

APPENDICES

- APPENDIX A. Structure Site Log.
- APPENDIX B. Seneca Lake Fracture Sets
- APPENDIX C. Fracture Frequency
- APPENDIX D. Seneca Lake Rose Diagrams
- APPENDIX E. PROPRIETARY APPENDIX: "An Aeromagnetic Interpretation of the Finger Lakes Area South-Central New York with a Northwestern Extension"--Final Report by Pearson, deRidder and Johnson, Inc.
- APPENDIX F. PROPRIETARY APPENDIX: "Linear feature Analysis for Aeromagnetic Data: A New Magnetic Lineament Modeling Technique"--Final Report by Pearson, deRidder and Johnson, Inc.

FIGURE 1

FIGURE 2

Legend For: Modified Rose Diagrams

FIGURE 3

BURDETT 7.5' QAUDRANGLE

FIGURE 4

FIGURE 5
(Map Enlarged 400 X from Index Map)

BURDETT ENLARGED AREA "B"

(Map Enlarged 1000 X from Index Map)

FIGURE 6

BURDETT ENLARGED AREA "C"

FIGURE 7

BURDETT ENLARGED AREA "D"

FIGURE 8

FIGURE 9

READING CENTER ENLARGED AREA "A"

(Map Enlarged 1600 X from Index Map)

FIGURE 10

READING CENTER ENLARGED AREA "B"

0.2 MILE

0.2 KM

(Map Enlarged 1600 X from Index Map)

FIGURE 11

FIGURE 12

LODI ENLARGED AREA "A"

(Map Enlarged 1600 X from Index Map)

0.2 MILE

0.2 KM

FIGURE 13

LODI ENLARGED AREA "B"

(Map Enlarged 1600 X from Index Map)

0.2 MILE

0.2 KM

FIGURE 14

LODI ENLARGED AREA "C"

0.2 MILE

0.2 KM

(Map Enlarged 1000 X from Index Map)

FIGURE 15

LODI ENLARGED AREA "D"

FIGURE 16

LODI ENLARGED AREA "E"

(Map Enlarged 700 X from Index Map)

0.2 MILE

0.2 KM

FIGURE 17

LODI ENLARGED AREA "F"

(Map Enlarged 1600 X from Index Map)

0.2 MILE

0.2 KM

X 1600

FIGURE 18

DUNDEE 7.5' QAUDRANGLE

FIGURE 19

DUNDEE ENLARGED AREA "A"

(Map Enlarged 1600 X from Index Map)

FIGURE 20

DUNDEE ENLARGED AREA "B"

FIGURE 21

FIGURE 22

OVID ENLARGED BOX "A"

FIGURE 23
(Map Enlarged 800 X from Index Map)

OVID ENLARGED AREA "B"

(Map Enlarged 1400 X from Index Map)

0.2 MILE

0.2 KM

FIGURE 24

0.2 MILE

0.2 KM

FIGURE 25

OVID ENLARGED AREA "D"

(Map Enlarged 800 X from Index Map)

0.2 MILE

0.2 KM

FIGURE 26

FIGURE 27

FIGURE 28

FIGURE 29

FIGURE 30

FIGURE 31

UB R.F.G. / QUEST ENERGY, INC.		
DOE/ETC PRDA No. DE-RA26-98FT40191		
ISOPACH LOOKPORT - TRENTON		
FINGER LAKES REGION, NY		
Sheet Number:	Sheet:	08/12/2005
Drawn By:	Checked By:	C1 = 25

FIGURE 32

UB R.F.G. / QUEST ENERGY, INC.			
DOEFETC PRDA No. DE-RA26-98FT 40191			
ISOPACH TRENTON - BLACK RIVER			
FINGER LAKES REGION, NY			
Sheet Number	097/2001		
Scale	1" = 25'

Legend	
SEISMIC LINES LICENSED TO QUEST ENERGY, INC.	
WELLS TRENTON AND DEEPER (with Data Values shown in Blue)	
** NOTE : WELLS NOT PENETRATING THE TRENTON ARE NOT SHOWN	

FIGURE 33

UB R.F.G. / QUEST ENERGY, INC.			
DOE/FETC PRDA No. DE-RA28-99FT40191 BLACK RIVER STRUCTURE FINGER LAKES REGION, NY			
Sheet Location	Overall gtd	99777001	
Item Codes	C1 = 30

Legend	
	SEISMIC LINES LICENSED TO QUEST ENERGY, INC.
	WELLS TRENTON AND DEEPER (With Date Values shown in Blue)
** NOTE : WELLS NOT PENETRATING THE TRENTON ARE NOT SHOWN	

FIGURE 36

UB R.F.G. / QUEST ENERGY, INC.			
DOE/FETC PRDA No. DE-RA26-99FT40191			
ISOPACH ONONDAGA - LOCKPORT			
FINGER LAKES REGION, NY			
State/Location	Map/Title	Map/Title	Map/Title
State/Location	Map/Title	Map/Title	Map/Title
State/Location	Map/Title	Map/Title	Map/Title
State/Location	Map/Title	Map/Title	Map/Title

Legend	
	SEISMIC LINES LICENSED TO QUEST ENERGY, INC.
	WELLS TRENTON AND DEERER (WELL DATA VALUES SHOWN IN BLUE)
NOTE: WELLS NOT PENETRATING THE TRENTON ARE NOT SHOWN	

FIGURE 37

UB R.F.G. / QUEST ENERGY, INC.			
DOEFETC PRDA No. DE-RA28-89FT40191			
ISOPACH LOCKPORT - TRENTON			
FINGER LAKES REGION, NY			
Scale: 1 inch = 1 mile	Comp: 12.05	05/10/01	
Ben Celler		C. 1-20

Legend	
	SEISMIC LINES LICENSED TO QUEST ENERGY, INC.
	WELLS TRENTON AND DEEPER (with Data Values shown in Blue)
** NOTE: WELLS NOT PENETRATING THE TRENTON ARE NOT SHOWN	

FIGURE 38

UB R.F.G. / QUEST ENERGY, INC.			
DOEFETC PRDA No. DE-RA26-99FT40191			
ISOPACH TRENTON - BLACK RIVER			
FINGER LAKES REGION, NY			
Sheet Location	Sheet 17 of 18	Scale	1" = 20'
Sheet Name	Black River	Scale	1" = 20'

Legend	
	SEISMIC LINES LICENSED TO QUEST ENERGY, INC.
	WELLS TRENTON AND DEEPER (With Data Values shown in Blue)
NOTE: WELLS NOT PENETRATING THE TRENTON ARE NOT SHOWN	

FIGURE 39

FIGURE 43

Legend	
	SEISMIC LINES LICENSED TO QUEST ENERGY, INC.
	WELLS TRENTON AND DEERER (with Data Values shown in Blue)
** NOTE : WELLS NOT PENETRATING THE TRENTON ARE NOT SHOWN	

UB R.F.G. / QUEST ENERGY, INC.	
DOEFETC PRDA No. DE-PA28-99FT40191 ISOPACH TRENTON - BLACK RIVER FINGER LAKES REGION, NY	
Sheet Location	Sheet # of
Sheet 0001	0001/0001
C1 - Z	

FIGURE 45

FIGURE 46

FIGURE 47

OID SLOPE STANDARD DEVIATION

FIGURE 48

OVID TOPOGRAPHIC SLOPE ORIENTATION

FIGURE 49

GLODES CORNERS ROAD

FIGURE 50

MUCK FARMS

FIGURE 51

FIGURE 52

FIGURE 53

FIGURE 54

FIGURE 55

Appendix A

Site Log

Appendix A - Site Log - 1

Site	RDJ #	Page	Book	Date	Quad	Map #	Location	Data Type	Structure	Observations	Data Entry	HST	Sup. Sats Orient.	M/A Rela	Spac Calc	SL Plot	Roso	Spec Hst
1		5	d11	7-6-00, 7-8-00	Burdett	17	Along Rte 414	SL			x	x	x	x	x		x	
2		10	kw	07/05/2000	Burdett	17	Excelsior Glen	SL			x		x	x	x		x	
3		17	d11	7-9-00	Burdett			SL			x							
4		18	kw	07/04/2000	Burdett	17	Hector Falls	SL			x		x	x	x		x	
5		20	d11	07/06/2000	Burdett	17		SL			x		x	x	x		x	
6		20	kw	07/08/2000	Burdett	17	Seneca Lake Inlet	o-notes o-notes			x		x	x	x		x	
7		24	d11	7-7-00	Burdett	17		SL			x		x	x	x		x	
8		25	kw	07/07/2000	Burdett	17	NJ House	SL			x		x	x	x		x	
9		30	d11	7-7-00	Burdett	17		SL			x		x	x	x		x	
10	72	40	d11	7-11-00	Burdett	14	Warner Rd	QD			x		x	x	x		x	
11		34	kw	07-11-00	Burdett	14		QD			x		x	x	x		x	
12		40	d11	07/11/2000	Burdett	14	Warner Rd	SLAQD			x		x	x	x		x	
13	150	34	kw	07-11-00	Burdett	11	Sawmill Creek	SLAQD			x		x	x	x		x	
14	150	80	d11	7-14-00	Burdett	11	Sawmill Creek	QD			x		x	x	x		x	
15	150	82	kw	07-14-00	Burdett	11	Sawmill Creek	QD			x		x	x	x		x	
16		82	d11	7-14-01	Burdett	11		SL			x		x	x	x		x	
17		82	kw	07-14-01	Burdett	11		SL			x		x	x	x		x	
18		88	d11	7-17-00	Burdett	17	Glen Eldridge Hollow, Sam's property	SL	FID		x		x	x	x		x	
19		82	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
20		83	kw	07-17-00	Burdett	17	Glen Eldridge Hollow, Sam's property	SL			x		x	x	x		x	
21		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
22		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
23		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
24		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
25		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
26		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
27		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
28		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
29		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
30		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
31		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
32		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
33		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
34		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
35		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
36		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
37		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
38		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
39		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
40		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
41		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
42		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
43		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
44		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
45		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
46		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
47		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
48		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
49		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
50		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
51		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
52		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
53		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
54		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
55		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
56		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
57		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
58		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
59		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
60		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
61		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
62		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
63		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
64		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
65		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
66		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
67		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
68		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
69		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
70		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
71		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
72		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
73		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
74		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
75		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
76		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
77		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
78		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
79		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
80		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
81		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
82		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
83		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
84		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
85		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
86		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
87		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
88		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
89		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
90		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
91		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
92		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
93		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
94		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
95		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
96		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
97		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
98		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
99		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
100		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
101		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
102		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
103		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
104		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
105		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
106		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
107		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
108		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
109		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
110		93	kw	07-17-00	Burdett	17		SL			x		x	x	x		x	
111		93	kw	07-17-00	Burdett</													

Appendix A - Site Log - 2

Site	RDJ #	Page	Back	Date	Quad	Map #	Location	Data Type	Structure	Observations	Data Entry	HST	Sep. Sta. Ordnt.	MVA Reln	Spac Calc	SL Plot	Rose	Spec/Hist
31		130	d1	7-24-00	Lodi	E1	Simsa Club	SL			X		X	X	X		X	
34		92	kw	07-24-00	Lodi	E1	Rhodes Rd Creek	SL			X		X	X	X		X	
34B		99	kw	07-24-00	Lodi	E1	Rhodes Rd Creek	SL			X		X	X	X		X	
35		140	d1	7-25-00	Lodi	E1	Shaw Rd	SL			X		X	X	X		X	
36		105	kw	07-25-00	Lodi	E1	Shaw Rd	SL			X		X	X	X		X	
37		145	d1	7-25-00	Lodi	E1	Shaw Rd	SL			X		X	X	X		X	
38		107	kw	07-25-00	Lodi	E1	Shaw Rd	SL			X		X	X	X		X	
39		160	d1	7-25-00	Lodi	E1	Shaw Rd	SL			X		X	X	X		X	
40		111	kw	07-25-00	Lodi	E1	Shaw Rd	SL			X		X	X	X		X	
41		156	d1	7-25-00	Lodi	E1	Shaw Rd	SL			X		X	X	X		X	
42		4	d2	7-27-01	Lodi	E2	Shaw Rd Creek 2	QD			X		X	X	X		X	
43		115	kw	07-27-01	Lodi	E2	Shaw Rd Creek 3	SL			X		X	X	X		X	
44		8	d2	07-27-00	Lodi	E1	Shaw Rd Creek 2	SL			X		X	X	X		X	
44k		117	kw	07-27-00	Lodi	E1	Shaw Rd	SL			X		X	X	X		X	
45k		121	kw	07-27-00	Lodi	E1	Shaw Rd	SL			X		X	X	X		X	
46		15	d2	8-2-00	Lodi	E1	Lodi Pt	SL			X		X	X	X		X	
46c		11	d2	8-2-00	Lodi	E1	Lodi Pt	SL			X		X	X	X		X	
48		13A	d2	8-3-00	Lodi	E1	Lodi Pt	SL			X		X	X	X		X	
47		13	d2	8-3-00	Lodi	E1	Lodi Pt	SL			X		X	X	X		X	
48k		14	d2	08/03/2000	Lodi	E2	Lodi Pt	SL			X		X	X	X		X	
48c		6	d2	8-3-00	Lodi	E1	Lodi Pt	SL			X		X	X	X		X	
49		12	kw	8-3-00	Lodi	E1	Lodi Pt	SL			X		X	X	X		X	
50		12	kw	8-3-00	Lodi	E1	Lodi Pt	SL			X		X	X	X		X	
51		44	d2	8-3-00	Lodi	E1	Shaw Rd Creek 1	SL			X		X	X	X		X	
51c		133	kw	08-03-00	Lodi	E1	Shaw Rd Creek 1	SL			X		X	X	X		X	
52		1	d2	10-21-00	Lodi	E2	Only Rte 1	QD			X		X	X	X		X	
53		4	d2	10-21-00	Lodi	E2	Only Rte 1	QD			X		X	X	X		X	
54		8	d2	10-21-00	Lodi	E2	Only Rte 1	QD			X		X	X	X		X	
55		12	kw	10-21-00	Lodi	E2	Only Rte 1	QD			X		X	X	X		X	
56		135	kw	08-04-00	Lodi	E2	Only Rte 1	QD			X		X	X	X		X	
57		54	d2	8-4-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
58		54	d2	8-4-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
59		54	d2	8-4-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
60		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
61		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
62		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
63		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
64		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
65		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
66		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
67		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
68		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
69		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
70		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
71		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
72		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
73		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
74		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
75		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
76		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
77		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
78		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
79		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
80		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
81		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
82		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
83		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
84		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
85		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
86		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
87		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
88		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
89		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
90		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
91		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
92		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
93		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
94		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
95		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
96		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
97		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
98		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
99		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
100		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
101		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
102		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
103		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
104		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
105		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
106		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
107		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
108		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
109		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
110		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
111		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
112		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
113		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
114		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
115		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
116		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
117		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
118		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
119		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
120		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
121		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
122		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
123		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
124		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
125		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
126		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
127		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
128		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
129		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
130		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
131		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
132		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	
133		18	d2	8-9-00	Lodi	E2	Sixteen Falls Creek	SL			X		X	X	X		X	

Site	RDJ #	Page	Book	Date	Quid	Map #	Location	Data Type	Structure	Observations	Data Entry	HST	Sev. Surv. Orient.	M/A Ratio	Epic Calc.	SL Pld	Rose	Spec Hist
36	123	d2	8-17-00	Ovid	b7		Tommy Creek	Drawing									None	
38	-140	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
35	-140	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
37	-140	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
37	124,145	d2	8-17-00	Ovid	b7		Tommy Creek	QD									None	
38	125,139	d2	8-17-00	Ovid	b7		Tommy Creek	SL									X	
38	-140	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
38	-140	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
39	125,143	d2	8-17-00	Ovid	b7		Tommy Creek	QD									X	
40	-140	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
40	126	d2	8-17-00	Ovid	b7		Tommy Creek	QD									X	
41	129	d2	8-17-00	Ovid	b7		Tommy Creek	QD									X	
41	-140	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									X	
42	131	d2	8-17-00	Ovid	b7		Tommy Creek	QD									None	
42	-145	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									X	
43	138	d2	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
43	-145	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
44	134	d2	8-17-00	Ovid	b7		Tommy Creek	Notes									X	
44	-145	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
45	138	d2	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
45	-145	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
46	137	d2	8-17-00	Ovid	b7		Tommy Creek	QD									X	
47	-145	RDJ1	8-17-00	Ovid	b7		Tommy Creek	Notes									X	
47	139	d2	8-17-00	Ovid	b7		Tommy Creek	Notes									None	
47A	-145	RDJ1	8-17-00	Ovid	b7		Tommy Creek	QD									X	
47B	-145	RDJ1	8-17-00	Ovid	b7		Tommy Creek	QD									X	
48	-160	RDJ1	8-17-00	Ovid	b7		Tommy Creek	QD									X	
48	-160	RDJ1	8-17-00	Ovid	b7		Camp Babcock Hovey	Notes									None	
48	139	d2	8-18-00	Ovid	b7		Camp Babcock Hovey	QD									X	
50	137	d2	8-18-00	Ovid	b7		Camp Babcock Hovey	SL									X	
50	150,1	RDJ1	8-18-00	Ovid	b7		Camp Babcock Hovey	Strat.									None	
51	160,1	RDJ1	10-17-00	Ovid	b7		Camp Babcock Hovey	QD, Strat.									X	
52	160,2	RDJ1	10-17-00	Ovid	b7		Camp Babcock Hovey	QD									X	
53	5	RDJ2	10-17-00	Ovid	b7		Pitcher Rd	QD									X	
53	138	kw	10-17-00	Ovid	b7		Pitcher Rd	QD									X	
54	5	RDJ2	10-17-00	Ovid	b7		creek 2 to the N. ?	Notes									None	
54	141	kw	10-17-00	Ovid	b7		Pitcher Rd	QD									None	
55	8	RDJ2	10-18-00	Ovid	b7		Pitcher Rd	Strat, QD									X	
56	143	kw	10-18-00	Ovid	b7		Pitcher Rd	QD									X	
56	-5	RDJ2	10-18-00	Ovid	b7		Ratcliffe	Strat.									None	
57	145	kw	10-18-00	Ovid	b7		Pitcher Rd	QD									None	
58	12	RDJ2	10-18-00	Ovid	b7		Kondite	QD									X	
59	12	RDJ2	10-18-00	Ovid	b7		Kondite	Strat, QD									X	
60	RDJ2	14	10-18-00	Ovid	b7		boyscouts	Notes									None	
60	146	kw	10-18-00	Ovid	b7		boyscouts	QD									X	
60	7	RDJ2	10-18-00	Ovid	b7		boyscouts	Strat									None	
61	-30	RDJ2	10-18-00	Ovid	b7		boyscouts	QD									X	
61	146	kw	10-18-00	Ovid	b7		boyscouts	QD									X	
62	147	kw	10-18-00	Ovid	b7		boyscouts	QD									X	
63	-26	RDJ2	10-18-00	Ovid	b7		boyscouts	QD									X	
63	147	kw	10-18-00	Ovid	b7		boyscouts	QD									X	
64	-20	rd	10-18-00	Ovid	b7		Highland Rd	Notes									None	
65	-20	rd	10-18-00	Ovid	b7		boyscouts	Notes									None	
66	-20	rd	10-18-00	Ovid	b7		boyscouts	Notes									None	
67	87	rd	10-18-00	?	?		?	?									None	
68	-20	rd	10-18-00	?	?		?	?									None	
69	-20	rd	10-18-00	?	?		?	?									None	
70	-20	rd	10-18-00	?	?		?	?									None	

Appendix B

Seneca Fracture Sets

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
8-9-00-57 NNW Sixteen Falls Creek RDJ 16	1	14.65		335	73	W		8.0+	M(70's offline), M(4)				PL
	2	14.51	0.059	335	80	W		5.5+	M(80's x-joints), A(another 330 offline), M(4)				PL
	3	13.7		335	84	E		0.87	A(4)				PL
	8	12.59	0.469	335	80	W		7.0+	M(x-joint), L				PL
	9	12.42	0.077	337	86	W		7.0+	FM(18, 14), M(20)			Centric tws twist hackles @ 325°	PL
	10	12.2	0.100	337	?	?		0.89	A(x-joint offline at both ends)				
	11	12.11	0.038	335	?	?		2.0+	A(x-joint offline)				
	12	12.03	0.036	337	80	W			A(x-joint offline)				
	13	11.84	0.074	333	80	W		2	A(x-joint offline), FM(14)*				
	16	11.39	0.169	332	82	W		3.2	FA(9)* FM(13, 17)			*Rt Lateral offset	PL
	17	11.54	0.020	333	83	W		3.2	FA(14)* (18)				PL
	19	11.12	0.086	333	79	W		7.5+	(18, 20), FA(21)			rt stepping, centric tws twist hackles @	PL
22	9.54	0.668	335	?	?		7.0+	(21), M(x-joint offline)				PL	
23	9.43	0.038	330	85	W		1.1	A(x-joint offline @ #22, both ends)				CL	
24	9.1	0.134	334	86	W		9.0+4+	A(x-joint offline @ #22)				PL	
33	7.2	0.950	340	90			0.88	A(34), M(31), (32)				PL	
50	2.93	2.326	343	89	?		1.11	M(51), A(54)				PL	
55	1.38	0.821	342	78	E		2	(54)				CL	
NS 0-12	6	12.9		0	62	W		0.88	A(8)* A(x-joint offline), (3250/3350)			*curves perpendicular	PL
	30	7.6	4.680	12	86	E			A(325)* (335*)				PL
	34	7.19	0.355	10	90			2.2	M(33), (32, 31), A(28)				PL
	39	6.235		76/76	90/80	2/N		4+	M(38), (24), A(330*)				PL
	14	11.77	4.420	77	86	N		4.0+					PL
	18	11.18	0.465	78	89	N		1	FA(9)*, (19)			L.L. Offset	PL
	20	10.33	0.532	75	82	?		3.3+	A(9), (19), A(24)			* Rt. Lateral offset = .01m	PL
	21	9.92	0.487	77	86	N		5.0+	FM(19), (22, 24)				PL
	25	8.69	0.982	77	90			4+	A(28)*, (23, 24)			*As a hook	PL
	26	8.65	0.032	76	85	S		0.47	M(25), (24, 23), A(9)				PL
	28	8.09	0.447	77	90			5.5+	A(24), (22)			*Maybe a FA rt lateral	PL
	31	7.58	0.385	81	89	N		2	A(x-joint), (34, 29)			wiggly-PL	PL
ENE 74-84	32	7.37	0.168	77	89	N		5	(33, 34, 29, 30), A(330*), x-int)				PL
	35	6.92	0.373	74	89	N		10+	(34, 23, 24)				PL
	40	5.87	0.755	84	?	?		0.48	A(x-joint = 0)				PL
	41	5.735	0.097	84	?	?		1+	M(42), M(x-joint = 0)				PL
	43	5.00	0.595	76	88	N		3+	A(43)				PL
	45	4.48	0.421	76	88	N		2.2+	(44)				PL
	46	4.38	0.080	77	89	S		2.2+	(44)				PL
	47	4.263	0.094	75	89	S		3+	M(44)				PL
	48	3.98	0.228	77	90			3+	(330 x-joint)				PL
	51	2.9	0.851	78	?	W		66+	A(50A)* M(x-joint b/t 51& 52)			*50A is Parallel to 50 but shorter one of three composite fractures, fronting a very dominant fracture	PL
	52	2.77	0.106	74	88	N		3.0+	M(50A)* M(335 offline, M(330))				PL
	54	1.8	0.795	75	87	E		2.5	M(53), (55)				PL
56	1.34	0.377	75	89	S		4.5	M(55)			sometimes is a double .002m apart	PL	
58	0.35	0.780	78	88	S							PL	
8-9-00-58 ENE Sixteen Falls Creek 72-80	1	0		78	77	N							
	2	hidden but same direction											

[illegible]

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
10-18-00 Boyscouts RDJ 63	3	0.17	72									
	5	0.05	75									
	6	0.02	59									
	7	0.02	75									
	9	0.46	70									
	10	0.02	68									
	11	0.04	64									
	13	0.06	68									
	12	0.17	70									
	2	0	46									
	4	0.14	46									
ENE 59-75	8	0.51	90									
	2	0	46									
	4	0.14	46									
	8	0.51	90									
8-9-00-62, 8-16-00-62 Highland Rd Cut Top of Tully where rd turns N possible fault in Tully	1	0.135	339	85	NE	3.5+	1+				Tully L.S., all 5 layer #1 for sure (Sed drawing pg 2-98)	PL, JAGG ED
	2	0.78	643	85	NE	1.5+	1+				layer 1, 2, 3 and possible 4 and 5	CL, JAGGED
	3	1.12	333	89	SW	.75+	.07+				layers 2 and 3	PL
	5	3	1,308	332	?	1.6	.75+				layers 1, 2, 3 and 4	CL
	6	3.2	0.200	334	88	NE	.5+				layers 1, 2, 3 and 4	PL
	7	3.74	0.540	335	90		1+				All 5 layers	PL
	8	5.86	1.620	336	89	NE	1.5+				All 5 layers	PL, JAGG ED
	4	1.69	0.551	350	90		.75+				layers 2, 3 and 4	CL, JAGGED
8-15-00-64A Highland Rd Creek Above waterfall Q&D	A1	0.73	0.730	345	74	E	3.5+					PL
	A2	0.73	0.730	345	60	E	3					PL-CL CL
	A3	0.79	0.790	350	?	?	6+					JAGGED
	A4	0.62	0.620	4	?	?	4+					CL, JAGGED
	A5	0.25	0.250	358	?	?	1+					CL
	A6	0.73	0.730	3	?	?	3+					CL
	A7	0.21	0.210	2	?	?	1+					CL
	A8	0.79	0.790	6	?	?	1+					CL
	A9	0.5	0.500	346	77	E	2+					PL
	A10	0.86	0.860	350	?	?	3+					PL
	A11	0.8	0.800	351	70	E	1+					PL

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
8-15-00-65 Highland Creek SL & QD	7	1.16	0.276	537	90	W	.75+	1.3+	M(8.10)		SOS (1)	Chirokwa twist hackles	PL
	9	1.62	0.402	330	85	W	.06	0.13	A(9)*		SOS (1)	*As a hook	PL
	11	1.67	0.047	340	7	?	.21+	.5+	A(10)		SOS (1)		CL
	15	2.13	0.448	345	85		.38+	1.2+	NA		SOS (1)		PL
	16	2.48	0.300	328	85		.75+	1.09+	NA		SOS (1)		CL
	17	2.96	0.411	328	84		.7+	1+	NA		SOS (1)		CL
	19	3.81	0.770	334	7		.28+	.48+	NA		SOS (1)		CL
	21	4.66	0.736	329	86		.21+	.53+	M(20)		SOS (1)		PL
	22	4.76	0.097	345	70		.72+	.84+	NA		SOS (1)		CL
	23	5.29	0.501	340	90		.57+	.60+	NA		SOS (1)		PL
	18	3.77		64	76		.2+	2+	NA		SOS (1)		PL
	8	1.43		14	84	W	.5+	.75+	A(7)*		SOS (1)		
	20	3.83		31	40		.26+	.43+	A(21)		SOS (1)	*As a hook	PL
	A1			79	80	S			Mutually intersecting B set		Blk. Shale		
	A2	0.17	0.170	78	80	S			SOS A1		Blk. Shale		
	A3	0.17	0.170	78	79	S			SOS A1		Blk. Shale		
	A4	0.37	0.370	77	81	S			M(B1)*		Blk. Shale		
	A5	0.09	0.090	77	76	S			SOS A1		Blk. Shale	*B1 is offset 2cm	
	A6	0.17	0.170	76	75	S			SOS A4		Blk. Shale		
	A7	0.25	0.250	76	77	S			SOS A1		Blk. Shale		
	A8	0.09	0.090	78					SOS A1		Blk. Shale		
	A9	0.27	0.270	78	75	S			SOS A1		Blk. Shale		
	A10	0.56	0.560	78	81	S			SOS A1		Blk. Shale		
	A11	0.09	0.090	78					SOS A1		Blk. Shale		
	A12	0.045	0.045	77.5	75	S			SOS A1		Blk. Shale		
	A13	0.52	0.520	79					SOS A1		Blk. Shale		
NS 2-15	B1			2	87	W			Intersect A set except for A4&A6		SOS (A)		
	B2	1.5	1.500	15	67	W			Int. A set A(70°) we didn't measure		SOS (A)		
NNW	C1			337	80	SE			Abuts an intersection of A & B		SOS (A)		
	1	0.415		76	90			3	A(x-joint @ 325°)				PL
8-15-00-66 Highland Creek SL & QD	2	0.555	0.128	76	90			7+	I(5)				PL
	3	0.62	0.059	76	90			7+	I(5)				PL
	4	0.88	0.241	78	90			7+	I(5)				PL
	6	1.2	0.295	77	77	S		0.61	A(5)				
	7	1.82	0.562	75	88	S		2.5+	I(10° offline)				
	8	2.59	0.709	77	90			3.5+	I(10° offline), FA (Hair)*			*.005m RI Lateral	
	9	3.91	1.081	65	73	S		0.75	A(10° offline), A(Hairs)				CL
	10	4.74	0.617	58	42	S		0.9	SOS (9)				
	11	5.49	0.680	75				2.5	A(14), I(10° offline)				PL
	12	5.57	0.073	75				4.5+	I(10° offline), I(14)				
	13	5.78	0.175	77	85	N		3.5+	I(10° offline), I(14)				
	13.5	offline		70	77	N							
	15	6.065	0.272	73	80	N		3.5+	M(14), I(0° to S.)				
	16	6.39	0.295	75	85	N		4+	A(10° to N. curv. Perp.),				
	17	6.69	0.272	75	85	N		3.5+	I(10° to N. and 10° to S.)				
	18	6.75	0.064	75	85	N			A(9 curv. Perp.)				
	19	6.767	0.016	77					SOS(18)				
	20	6.9	0.121	75	88	N		4+	I(10° to N. and 10° to S.)				

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
NS	21	6.95	0.045	73	80	N		SOS(21)	FA(100 to N), l(10° to the S.)			* Rt laterally	
	22	7.1	0.135	74	88	N		SOS(21)	FA(100 to N), l(100 to the S.)			* As a Hook	
	23	7.152	0.048	77				0.8	A(22)*				
	24	7.205	0.048	76	83	N			FA(100 to N), l(10° to the S.), M(14)				
	27	7.56	0.412	75				2.5+	FA(100 to N), l(100 to the S.), A (ladderback to S. offline)			* Rt Lateral	
	28	7.79	0.117	74	88	N		4+	l(100 to N. and 100 to S.)				
	29	7.825	0.032	75	88	N		SOS	l(100 to N. and 100 to S.)				
	30	8.017	0.174	75	81	NE			FA(100 to N), l(100 to S.)*			* Rt lateral	
	31	8.085	0.062	75					FA(100 to N), l(100 to S.)*			* Rt lateral offset= .01m	
	32	8.245	0.145	75					FA(100 to N), l(100 to S.)*			* Rt lateral offset= .01m	
NW	33	8.965	0.653	75	88	N			A(ladderback)				
	34	9.11	0.127	71					l(10° to the S.)				
	14	5.03		352	87	E		2.2	l(all following fractures), A(22)				CL
	5	0.88		316	78	SW		2+	l(1-4), M(3), A(offline 80°)				
	1			8	89								
	2	1.55	1.550	8	86								
NE 38-42													
	1			42	42				l(some 80's), A(some other 80's)				
	2	0.19	0.190	38	40								
	3	0.19	0.190	40	47								
	4	0.49	0.490	40	40								
NNW 330													
NNW 330													

QD

only 2 N/S for
at least 4m
going
upstream

D Set (Hairs)

Spacing not near

fault

0.02

0.032

0.035

0.01

0.03

0.04

0.02

Spacing w/in

2cm of fault

0.006

0.005

0.008

0.002

0.007

0.006

0.022

0.006

0.022

0.006

Till undisturbed over tail of fracture/fault

Date/Site	#	Intersect (m)	True Spacing	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
		0.01	0.010										
		0.008	0.008										
		0.008	0.008										
8-16-00-67 Highland Rd creek SL	1	0		339	85	E	.89+	1.6+	NA				PL
	2	0.47		334	90		2.5+	8+	1(65° offline)/M(3)			chws twist hackles	PL
	4	1.15		338	82	E	1+	3+	M(3)/A(5)				PL
	5	1.26		329	90		2.5+	8+	M(4)/(65 offline)				PL
	8	3.02		344	84	E	1.7+	4.5+	NA				PL
	9	4.56		336	89	E	0.3	1.4	NA				CL
	10	4.74		336	84	W	0.3	0.84	NA				PL
NS 353-357	3	1.06		357	50	W	1+	2	A(2,4)*			*As a hook	Sigmoidal
	6	2.36		355	?	?	0.31	1.32	A(60° offline)				CL
	7	2.56		353	84	E	SOS (6)	SOS (6)	A(60° offline)				PL
ENE	11	6.51		61	82	S	2+	1.38+	M(12)				PL
NNE	12	6.97		21	76	N	28+	5+	A(11)				PL
NS RDJ 20 8-16-00 GD Highland Rd creek	A1	3+ to next	3.000	5	88	E		17	FM (B's)*			* LL offset of B's = .06m, .065m, .05m	
ENE 58-71	B1			59	86	N			FA (A1)				
	B2	0.7	0.7	71	86	S			FA (A1)				
	B3	0.54	0.54	71	90				FA (A1)				
	B4	0.4	0.4	70	88	S			FA (A1)				
	B5	1.04	1.04	58	86	N			A(C4)				
	B6	0.66	0.66	70	90				A(C4)				
NNW 326-335	C1			333	88	NE							
	C2	0.76	0.76	335	86	NE							
	C3	4.09	4.09	335	86	E							
	C4	0.37	0.37	330	88	W			M(B5, B6)				
	C5	1.05	1.05	332	90								
	C6	2.18	2.18	326	86	W							
	C7	0.095	0.095	329	89	W						*curves perp.	
(Spacings don't align w/ orientations)		Spacing 2cm from fault	0.010	326	?								
			0.015										
			0.090	327	87	E							
			0.022										
			0.005										
			0.017										
			0.020										
			0.015										
		Spacing 15cm from fault	0.100	326	88	W							
			0.750										
			0.065										
			0.090										
			0.090										
			0.055	326	87	E							
RDJ 21 8-16-00 GD Highland Rd creek	A1			7	82	E		4+	FM (B6, B7, B8)			IST	
NS 5-7	A2	1.4	1.4	7	88	E		4+	FM (B4, B5)			SOS A1	
	A3	2.74	2.74	5	87	E		4+				SOS A1	
ENE 71-76	B1			71	80				M(C1)				
	B2	1.36	1.36	73	?								
	B3	0.19	0.19	74	86	S							

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
RDJ 22 8-16-00 QD Highland Rd creek	B4	0.225	0.225	76	86	S			FA (A2)*			*LL offset = .01m	
	B5	0.27	0.27	74	85	S			FA (A2)*			*LL offset = .01m	
	B6	0.16	0.16	74	87	S			FA (A1)*			*LL offset = .02m	
	B7	0.23	0.23	74	90				FA (A1)*			*LL offset = .02m	
	B8	0.515	0.515	75	?				FA (A1)*			*LL offset = .02m	
	C1		C Set										
	C2	2.9		307	86	SW		2+	A (A1), M (B set)		IS1		
				305	?			40+	A (5*)		SOS (c1)		
RDJ 23 8-16-00 QD Highland Rd creek	A Set												
	A1	0.215	0.215	2	?								
	A2	0.215	0.215	10	B8				A (A3)*			* Hooks curv. Perp.	CL
	A3	0.06	0.06	11*					M (A2)				CL
	A4	0.3	0.3	9*								*Twist orientation= 13°	PL
	B Set (A&I A4)												
	B1			75	79	S							
	B2	0.135	0.135	75	74	S			FA (N-S 0's)*			*Twist orientation= 23°	PL
RDJ 24 A 8-16-00 QD Highland Rd creek	B3	0.15	0.15	73	77	S			FA (N-S 0's)*			*LL offset = .01m	
	B4	0.38	0.38	77	?								
	B5	0.68	0.68	74	?								
	B Set												
	A1			3	74	E			A (B1, B6, B7) (B2, B3, B4),				
	A2	0.215	0.215	3	78	E			M (B6)				
	A3	0.06	0.06	2	77	E							
	A4	0.3	0.3	5	85	E			A (B1, B6, B7) (B2, B3, B4)				
RDJ 25 8-16-00 QD Highland Creek	B1			76	89	N			M (A Set)				
	B2	0.6	0.6	77	?				I (A Set)				
	B3	0.215	0.215	77	?				I (A Set)				
	B4	0.34	0.34	76	89	N			I (A Set)				
	B5	0.41	0.41	79	90				I & M (A set)				
	B6	0.285	0.285	77	90				A & M (A set)				
	B7	0.78	0.78	79	87	S			M (A Set)				
	A1	35m .38	.35 .39	75	85				I (B Set)				
RDJ 26 8-16-00 QD Highland Creek	B1			5	87	S			I (A set)				
	B2	0.22	0.22	2	90				I (A set)				
	B3	0.5	0.5										
	C1	.01	.01	282	39	S							
		.015	.015										
		.015	.015										
		.02	.02										
		.03	.03										
RDJ 27 8-16-00 QD Highland Creek		.02	.02										
	A1			12	86	W			FM (B Set)*			*LL offset = .02m	
	A2	3.51		5	88	W			I (B's)				
	B1			76	?				FA (A1)				
	B2	0.36		76	82				FA (A1)				
	B3	0.47		74	85				FA (A1)				
	B4	0.25		75	87				FA (A1)				
	B5	0.1		75	82				FA (A1)				
RDJ 28 8-16-00 QD Highland Creek	B6	0.255							FA (A1)				
	C1			335	?								
	C2	1.025		335	?								
	C3	0.06		335	88	W							
	C4	0.24											
	C5	1											

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
D Set (10cm away from slip surface)	D1	.07		340	45	W				TA Ash			
		.06											
		.05											
		.07											
RDJ 26 8-16-00 Highland Rd Creek Qd top of waterfall	A1	1.85	330-333	75	E				M(B set)				
	A2	1.85	338	82	E				M(B set)				
	A3	0.97	345	?					M(B set)				
	B1		85	90					A(A set)				
RDJ 27 Highland rd QD	B2	1.32	73	83	S				?				
	B3	1.04	1.04						A(A set)				
	A1		74	87	S								
	A2	0.13	72	81	N				Mutually Abut				
RDJ 29 Highland rd Creek 8-16-00 QD	A1		10	89	W			4	I(B's)		Cuts concretions		PL
	A2	0.12	5	?				4	M(B's)			no offset	
	A3	3.07	9	89	W				I(B's)				
	B1		77	90									
ENE 71-76	B2	0.51	71	83	N				A(curv. Parallel to A2),				
	B3	0.4	75	82	N				I(a1)				
	B4	0.06	77	81	N							splay	
	B5	0.94	76	?									
RDJ 30a 8-16-00 Highland rd Creek SL	1	0.62	80	?					A(2), I(4)				PL
	3	0.76	82	86	S				I(4)				
	5	0.97	79	85	S								
	6	1.04	79	82	S								
	7	1.535	79	83	S				Mix-joint*			* offline 340/55E	
	13	3.11	79	86	S				A(*)			* x-joint offline 0°?	
	14	3.54	81	88	S								
	10	2.51	80	85	S				M(5), FM (9)				
	11	2.73	80	84	S				FA (9)				
	12	2.83	82	84	S				FA (9)				
	16	4.09	78	83	S								
	17	4.145	80	88	S								
	18	4.48	80	?	S								
	19	4.78	80	77					M(20)				
	21	4.91	80	84	S				I(20)				
	22	5.15	81	?	S				M(20)				
	23	5.22	79	90					M(24)				
	25	5.92	79	?					M(24)				
	26	6.05	80	83	S								
	27	6.26	79	?									
	28	6.45	80	?									
	29	6.72	80	82	S								
	30	7.21	80	?									
	31	7.42	80	?									
	32	8.18	80	83	S								
	33	8.5	81	?									
	34	9.92	83	83	S								
	35	10.05	82	80	S								
	37	11.3	80	?									
	39	12.17	82	?					FA(38)				
	40	12.28	80	?					FA(38)				
	41	12.98	82	82	S				I(48)				
	42	13.16	80	86	S								

Date-Site	#	Intersect (m)	True Spacing	Dip	Strike	Dip	H (m)	L (m)	M/A	Y/B abut	Sed. Char.	Comments	Frac. Char.
	44	13.72		?	80	?			FA(43)*			*Rt lateral offset = .075m	
	47	15		?	80	?							
NS	45	14.15		?	15	?			M(46)			Some of the 80's curving perp. to this one	
NW	38	11.55		?	327	?			FM(80's), FM (39, 40)			* Rt lateral offset = .075m	
327-332	9	2.48		88	332	88	E		FM(10, 11, 12)			*Rt Lateral .015	
	43	13.15		90	330	90			I(41), FM(80 offline), FM(44)*			*Rt lateral offset = .075m	
NNW	2	0.66		?	350	?			M(1)				CL
336-350	4	0.84		75	345	75	E		I(3), I(1)				
	8	2.12		?	343	?			I(7), A(10)			composite	CL
ENE	46	14.3		?	65	?			A(45)				
NS	A1			81	7.5	81	E		FM(B set 80's)				
355-8	A2	1.48		89	8	89	W		FM(B set 80's)				
	A3	1.27		90	3	90			A(B set)				
	A4	0.33		86	355	86	E		A(some of B set), I (some of the 80's)		not through going		Wiggle
EW	b	.1, .125, .228, .11, .15, .11, .58		88	79	88	S		FA(A1, A2), M(A3, A4)				
8-16-00-7 Tommy Creek RDJ 33	A20	-0.47		?	68	?	?						
	A1	0		89	76	89	N	1.53+	M(4)				PL
	A2	0.3		?	76	?		.46+	I(4)				PL
	A3	0.425		87	75	87	N	SOS (A2)	M(4), A(8)				PL
	A5	0.63		?	74	?	?	1.2+	A(6)*				PL
	A7	1.02		?	76	?	?	0.45	I(6)			*As a hook	PL
	A8	1.14		89	72	89	S	28+	I(6, 9), A(11)				PL
	A16	2.81		80	79	80	S	1.9+	I(17, 18, 820), M(19)				PL
	b21	4.56		90	74	90		2.3+	I(20)				PL
	b18	5.27		85	71	85	N		M(20)		composite		
	b17	5.955		88	75	88	N						
	b15	7.03		?	78	?			M(N-S offline), M(16)		cuts 3cm thick carbonate w/ brachiopods		
	b14	7.34		88	75	88	S		M(N-S offline)			doesn't cut 3cm carbonate	
	b12	7.64		90	74	90						cuts 3cm thick carbonate w/ brachiopods	
	b10	8.38		89	75	89	S		FM(9), M(13), I(11)	7A 3cm carbonate w/ brachiopods			
	b7	9.2		88	72	88	E		M(8), M(4)		cuts 3cm thick carbonate w/ brachiopods	Right lateral offset	
	b5	9.5		90	74	90			I(4), FM(6)			right lateral offset = .05m	
NW	A10	1.36		80	314	80	NE	1.33+	A(9)*, M(11)			*As a hook	CL
NS	A11	1.55		81	354	81	E	.35+	M(8), A(10)				CL
348-10	A12	2.52		77	348	77	W	.75+	NA				CL
	A21	-0.52		55	2	55	E	1.2+				Composite	PL
	A22	-1.37		50	9	50	E	1+					
	A6	0.88		?	354	?	?	1+					
	A9	1.25		73	6	73	E	1.9+	M(5), A(4), I(7, 8)				CL
	A13	2.55		45	0	45	E	.21+	I(7, 8), M(10, 3)				CL
	A14	2.61		79	5	79	E	3.5+	A(14)*			*As a hook	CL
	A15	2.68		4	4	68	E	.53+	M(13)				CL
	A17	2.88		71	8	71	E	.65+	NA				PL
	A18	3.05		77	5	77	E	1.5+	I(16)				PL
	A19	3.79		?	355	?	?	.12+	A(16), M(821, B18)				PL
	b1	11.16		?	0	?	?	11+	I(80 offline)		Limey Shale w/ shell marker		PL

Date/Date	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B about	Seg. Char.	Comments	Frac. Char.
	b2	10.81		5	?	?		9	A(80 offline)				
	b3	10.67		6	?	?			A(80 offline)				
	b4	10.44		0	86	E		3.5	A(80 offline), (15), A(7)				
	b5	9.45		3	89	E			FA(5), A(7)				
	b6	9.05		4	?	?		1.5	A(80 offline to N.), A(80 offline to S.)				
	b7	8.86		7.5	?	?		14+	FA(10)			right lateral offset = 2cm	
	b11	7.9		3	90			3.5	I(10)			hooks both to N & S	
	b13	7.5		2	88	W			FA(10), A(80 offline to N.)			right lateral offset	
	b16	6.94		357	?	?			A(15)				
	b19	4.88		10	?	?							
	b* 20	4.6		357	?	?			A(18), (21)				
8-17-00 RDJ 34 Tommy Creek	A1	0.63		72	79	S	0.16	1+			Black Shale (containing a 2cm liney silt with death assemblage- lag w/ offiters)	Fractures are possible glacial unloading fractures as glacier retreated to the north within Lake Seneca (Silt close to Lake)	PL
	A16	6.24		73	81	S	51+	3+			SOS (A1)	SOS (A1), swings to the N.	PL
	A4	2.38		62	71	S	35+	1.45+			SOS (A1)	SOS (A1)	PL
	A5	3.1		59	86	S	04+	40+			SOS (A1)	SOS (A1)	CL
	A11	4.72		60	90	W	04+	49+			SOS (A1)	SOS (A1)	CL
	B8	12.63		60	31	NW		6+	A(b7), Misplay b9				PL
	B12	11.05		71	78	S		1.9+	M(b11), M(c10)				PL
	B15	9.97		68	86	S		2+			SOS (b1)		PL
	B19	8.47		70	82	S		3.2+	M(b16), M(b17), M(b19)				PL
look at this site again ????????	A6	3.59		321	90		06+	0.56			SOS (A1)	SOS (A1)	PL
NW	A7	4		336	90		33+	0.45			SOS (A1)	SOS (A1)	PL
	A8	4.27		333	86	W	44+	1.2			SOS (A1)	SOS (A1)	PL
	A13	5.095		341	76	W	31+	69+			SOS (A1)	SOS (A1)	CL
	A15	6.18		335	?	?	41+	77+			SOS (A1)	SOS (A1)	CL
	A17	6.34		339	86	W	0.17	0.4			SOS (A1)	SOS (A1), * offline fracture 20'	PL
	B7	12.88		340	68	W		1.1+	Curving perp to b6, A(splay of b3)				CL
	B14	10.6		335				39+	A(b15a)			x-joint	
	B15A	10.12		335	51			71+	M(b14)				PL
	B22	7.695		340	89	E		65+	A(A18)				ST
	B23	7.43		330					A(A16)				
	A10	4.48		335	78	W	30+	66+			SOS (A1)	SOS (A1)	PL
	B1	14.68		345	78	W		91+	A(b4)?				CL
	B17	9.7		348	60	W		54+	A(b18)			2cm liney silt	PL
	B20	8.15		348	68	W		1.2			SOS (b1)	x-joint	PL
	A12	5.01		356	84	W	21+	50+			SOS (A1)	SOS (A1)	PL
	A18	6.58		350	90		29+	1+			SOS (A1)	SOS (A1)	CL
	A19	6.72		350	?	?	0.1	0.27			SOS (A1)	SOS (A1)	PL
	A20	7.15		356	?	?	20+	83+			SOS (A1), zoophycus near A20	SOS (A1)	CL
	A21	7.22		358	?	?	17+	65+			SOS (A1)	SOS (A1)	CL
	B2	14.55		358	55	E		5+	I(b4) or A(b4)?				CL
	A3	0.97		2	54	W	0.2	0.5			SOS (A1)	SOS (A1)	CL
	B3	14.46		4	40	E		2+	A(b4)				CL
	B6	13.62		5	63	E		9+	Curving parallel to a splay of b4				CL
	B9	12.32		5	82	W		1.3+	I(b7)				PL
	B10	12.15		4	29	E		64+	A(b12)	TA 2cm liney silt			PL
	B11	11.62		350	87	W		75+	A(b12), M(b13)				Wiggle
	B13	11.03		350	74	E		0.99	I(b12), Curving perp. to b11				PL

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
RDJ 32 Tommy Creek 8-17-00-?	B16	10.03		5	60	W		0.84	A(b15), A(b18)		SOS (b1)	x-joint	SIGMOID AL
	B19	8.5		12	31	SE		.81+	A(b18)		SOS (b1)		Wiggley, PL
	B21	7.9		350	83	E		.90+	A(A16)		SOS (b1)		(locally) ST
	A2	0.97		50	55	SE	.34+	1.2			SOS (A1)	SOS (A1)	PL jagged
NE 47-50	A14	5.93		47	?	?	.20+	.45+			SOS (A1)	SOS (A1), eroded	PL jagged
	B4	14.2		50	76	NW		.5+	A or FA (330 or 340 offline)		SOS (b1)	curves Parallel to B4	PL
NNE 20-33	B5	14.4		33	55	SE			A(b4)*		SOS (b1)		CL
	A9	4.26		20	57	E	0.14	0.26			SOS (A1)	x-joint	Sigmoidal
NS RDJ 32 Tommy Creek 8-17-00-?	B2	25.97		12	?	?	?	6+			Tully L.S.		CL
	B3	23.13		4	?	?	?	3			Tully L.S.		CL
	B7	14.22		4	?	?	?	1			Tully L.S.		PL
	5	21.3		88	?	?	?	6+		121.1	Tully L.S.	RT. Lateral Offset 10 cm	PL, jagged
NE	B6	17.6		46	?	?	?	7+			Tully L.S.	possible vert. Offset up to the south = 2"	CL
	B1	25.9 (offline diagram p.2-121)		326	?	?	?	9+			Tully L.S.		PL, wiggley CL
NNW 326,345	B5	19.8		345	?	?	?	2.7			Tully L.S.		CL
NS 7-5-00-1, 7-6-00-1 Along Rte 414	1	0		7	90		4.5+	8.3+	M		thick sand <= 9m	Mn oxidized	pl
	26	51.2		11	71	N	11-2	1.09	A(29)		SOS (21)		cl, bumpy
NNW 329-346	n7	43.2		335	90		1.3+	3.0+	NA	TA sand	SOS (5)		pl
	2	3.5		335	85	ENE	4.5+		A(1)		interbedded sand & shale sos (1)	Dies into sh & starts again in sand	pl
	3	20.9		331	89	E	4.5+	8.5+	A(1)		is		p
	11	35		332	90		4	7+	M		cs		p
	14a	45.35		334	87	E	1.40+	2.5	M(14b)		cs		p
	16	48.1		340	84	E	3+	0.5	M(15)		cs, 5mss		p
	19	50.5		336.5	86	E	2.25+	0.83	na		cs		p
	34	56.97		333	89	W	1.01	3	M		SOS (21) & thickness .5m	Main Master, Mn in wall	cl
	37	59.9		336	86	E	.43+	0.61	A(34), M(30)	TA shaley S.S.	Sand, 49m thick Thick Sand overlying Shaley Sand, SOS (37)		pl
	38	60.45		334	90		.46+	1.56+	A(33), M(35)			Mn, Plumose Structures Cuts through the center of a borehole	cl
	39	63.25		334	90		.07+	0.21	NA		SOS (37)		p
	40	67.9		335	84	E	.94	4.6	na	nsrl. Sh	sh		p
	41	64.39		331	90		.21+	2+	na	nsrl. Sh	sh		p
	48	70		330	87.5	E	6+	3	na	na	is		p
	45	72.44		328	90		5+		na		is		p
	50	89.3		329.5	90		4+	13+	M(49)		27cm sh Sand		p
ENE 65-79	n2	96.25		333	86	E	3.5	14.05	NA		Interbedded Sand & Shale	2-2b shows clwos rot. assuming that sand broke first	pl
	n2a	96.25		331	89	E	1.21	14.25	NA		Thick Sand, <= .23m		pl
	2b	96.25		329	86	E	0.81	14.25	NA		Shaley Sand, <= .08m sand		pl
	n1	110		346	45	E	0.7	2	NA				cl
	9	24.64		77.5	79	N	21	4+	na	tsrl. b-ss	.5m sand is		p
	10	25.89		76	77	N	.58+	11+	na				c
	12	39.1		76.5	89	S	.22+	6+	na		cs		c/p

Date/Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
EW 82-285	13	41.7		75	41	S	22+	4+	na		cs		c
	14b	42.25		65	71	N	0.46	B	a(14a)				c
	17	45.29		69	81	S	19	0.04	na	t-sh, b-sh			c
	18	45.42		60	86	S	22	10+	na		cs		p
	25	52.9		78	74	N	0.19	.32+	A(34)		one .32m thick sand		cl, bumpy
	28	53.65		78	75	N	0.09	.82+	M(26), A(34)		SOS (21)		pl, bumpy
	30	55.15		79	76	N	.05-2.0+	.86-1.5+	A(37)	TA sh	Mostly shale, < .15m	2m high jumps .2m & then continues 1.5m	pl
	33	56.03		78	68	N	.11+	.31+	M(38)		SOS (21)		pl
	35	56.67		74	88	S	.05+	.042	A(38)		SOS (21)		pl
	43	70.9		70	88	S	0.9	0.25	na	slirt. Sh	sh		p
	44	71.6		70.5	89	S	0.74	20.5+	na		ls, 10 cm s		p
	49	82.92		74	90	S	.10+	0.41	a(50)		Shaley Sand		p
	n3	97.8		75	89	S	0.27	0.11	NA		SOS (5), w/ sands < .14		pl
	n6	88.23		74	80	N	0.14	.03+	NA	TA & BA sh			pl
	15	44.72		273	89	S	3	0.6	a(16)				p
	20	48.81		271.5	89	N	24	1.75	na	b-cs			clp
	21	48.98		90	89	S	0.15+	0.24	NA		ss & sflss, ss thickness .24m		pl-cl
	22	49.14		90	87	N	0.17	.03+	NA		SOS (21)		pl
	23	49.9		272	88	S	0.23	0.22	NA		SOS (21)		
	24	50.29		275	82	N	.73+	0.75	NA		Shale & Sand, sand thickness .5m		Pl, but not smooth
	27	53.4		88	76	N	.23+	.83+	A(34)		SOS (21)		pl
	29	54.45		82	84-87	S	0.07	.85+	M(26)		SOS (21)		pl, wig
	31	55.72		88	86	N	0.56	0.0158	NA		SOS (21)		d
	32	55.9		88	83	N	.09+	.39+	NA		SOS (21)		
	36	57.82		86	88	N	.08+	.46+	NA		SOS (21)		
	42	68.61		276	89	N	1.21+	.24+	na	slirt. Sh	sh		p
	46	72.9		86.5	86	S	.41	.5+	na		ls		p
	47	72.93		85	84.5	S	.41+	.7+	na				p
	n6	91.24		279	89	S	0.87	.05+	NA		SOS (5)		d
	n4	97.1		281	89	S	0.08	0.17	NA		SOS (3)		pl
	n5	91.2		285	86	N	.46+	.02+	NA		Shaley Sand		d
Site 8 7-12-00-8 Vallos in creek N. of San Feliz Hotel	a1	0.96		330	90		0.38+	.34+	na		sh		p
	a6			330	90		0.32	0.54	1				p
	a7	2.48		339	87w		0.75	1	na		sh, int. ss ext. all beds		p
	a9	3.7		332	90		1+	1.90+					p
	a10	5.25		335	90		1.5	2+	na				p
	a11	5.64		336	89w		1.5	2+	na				p
	a12	6.4		332	90		1.5	3.51+					
	a13	6.59		336	89e		0.45	1.5	cl, w/ ss, a12				c
	a14	8.3		334	89w			3.0+					p
	b1	18.52		337	78	W	C.84+	3.18+	M(B2)		Mostly Sh w/ some thicker sands, carbonate sands < .04m, sh < .12m		PL-CL W/G
	b5	15.79		335	87	W	C.41	C1.45+	M(B4)		SOS (B1)	Composite	PL
	b6	15.61		335	87.5	W	.84+	1.04+	NA		SOS (B1)		PL
	b7	15.27		342	90		.80+	1.22	NA		SOS (B1)		PL
	b8	15.17		335	?		.80+	2.8+	NA		SOS (B1)	poss. cirkw/ twist hackles	CL
	b9	14.5		336	84	E	C.70+	C1.22+	NA	BA sh as a hook	SOS (B1)	composite	PL
	b10	13.84		337	86.5	W	C1.08+	C1.22+	M(B11)		SOS (B1)	composite	PL
	b12	13.65		342.5	72	W					SOS (B1)		PL
	b13	13.6		335	82	W	.21+	.70+	NA		SOS (B1)		PL
	b14	13.51		334	88	E	0.7	1	NA		SOS (B1)		PL
	b15	10.96		335	86	W	C.96+	?	NA				PL
	b16	9.66		330	87	E	?	C1.88+	NA		SOS (B1)		PL

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
Site 9 7-12-00-9 Creek N. of San Feliz Hotel	b17	9.51		334	86	E	70+	3.05+	NA		SOS (B1)		PL
	b18	9.5		341	84	E	61+	1.36+	NA		SOS (B1)		PL
	b19	9.4		338	?		17+	.39+	NA				PL
	b20	9.375		335	89	W	0.24	1.0+	NA				PL
	b21	9.25		344	85	W	0.64	1.0+	NA				PL
	b22	9.02		336.5	90		1.13+	4.0+	NA		SOS (B1)	en echelon	PL
	b23	8.98		335	86	E	0.77+	1.72+	A(B22) in hook		SOS (B1)		PL
	a2	1.7		30	88w		80+	2.4+					PL
	b3	15.89		34	?		27+	1.06+	M(LB)	TA sh	SOS (B1)		PL
	a5	27 cm off		21	75w		0.33	0.44	?				PL
	a3	30cm off		90	85s		0.04	0.4	A(a5)				PL
EW 87-276	a4	49 cm off		276	88s		0.15	20+	A(a5)				PL
	b2	offline		87	?		0.09+	.49+	A(B1)		SOS (B1)		CL
	a8	off line 2.8		355	90		0.28	0.17	na	t-sh	lim. To sh		PL
ENE 65,70	b4	offline		65	?		?	0.12			Basal .005m SS SOS (B1), controlled by upper .05m sand	locks like laterback, w/ LB spacing = .21	PL
	b11	offline		70	90		.11+	0.63	A(B10, A9)				CL
Site 9 7-12-00-9 Creek N. of San Feliz Hotel	a1	0		87	87s		.09+	1.17					P
	a3	0.77		76	81nw		31+	1.64+		bss, 15cm	ext. all beds		P
	a7	1.13		80	70w		.05+	.30+	na	t-ss	rest. sh		P
	a8	1.29		81			.02+	.20+	na		SOS		P
	B3	4.81		76	67	S	C.20+	1.90+		SOS (B1)			PL-CL
	a4	1.83		22	85se		6+	0.95	na				C
NNE 16-22	a5	2.39		16	90		.06+	.24+	na	t-sh,			C
	a6	3.3		17	86w		0.09	.86+	na	ss-sh	rest. Ss		C
	B1	5.35		339	90		.18+	1.09+	M(B2)	Bedded sand stone ≤ .18m thick			PL
EW 90-293	a2	0		90	83n		15+	0.98	na				P
	B5	3.9		293	?		0.05	.5+	A(B5)/M(B4)				CL
	B4	4.15		90	?		C.10	C1.21				composite	CL
	B2	6.87		271	80	S	C.44	C1.21+	A(B1)	SOS (B1)			CL
	A6	0		76	88	S	0.67	2.40+	M(A1, A2, A3, A4), (A12)		Basal Sh SOS (A3)		PL
	A5	0.05		60	82	S	0.08	.36+	NA				PL-CL
7-12-00-10a Site 10 West end of RR culvert Break neck Creek	A19	offline from A18											
	A2	.07m		56	?		0.04	0.19	A(B18)		Upper sh		PL-CL
	A1	0.2		61	77	S	.13+	.21+	M(A2)		Interbedded sand and shale, Sh = 33m, Sand < .08m	composite	PL-CL
	A4	0.33		60	82	S	0.08	.23+	A(A6)		SOS (A3)	Right stepping en echelon	PL-CL
	A3	0.41		62	77	S	0.08	0.4	A(A6)		Basal sand .09m	composite	PL
	A7	0.5		72	89	S	0.6	1.5+	(A12)		Basal sh, basal sand and into upper sand 26m		CL
	A8	0.87		66	88	S	0.36	0.38	NA	TA upper sand	Upper sh & upper sand		PL
	A9	0.98		54	80	S	0.2	0.4	NA		SOS (A8)	clockwise rotation from shale to sand	PL
	A10	1.1		68	90		.38+	.53+	NA		SOS (A8)		PL
	A11	1.12		77	90		0.4	.8+	NA		SOS (A8)		PL

Date/Date	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
7-12-00-106 Valois	A13	1.75		74	90		0.2	0.34	A(A12)	BA lowest sand, TA win basal sand	Basal sand	circulwv twist hackles	PL
	A14	2.2		75	88	N	0.56	0.46	A(A12)		Upper sh. basal sand, basal sh	en echelon	PL
	A17	3.3		68	86	N	0.22	0.37	I(B18)	TA upper sand	Upper sh		CL
	A16	3.35		80	87	N	28+	0.94	A(A17)		Basal Sand, upper sh		PL
	A23	3.47		72	88	N	36+	1.18	M(A22)	TA basal sand	Lowest sand		PL
	A21	3.65		64	81	N	0.2	58+	M(B18)		Upper sh		PL
	A15	2.49		341	90		0.54	.85+	A(A17)		Basal sand, upper sh, upper sand		PL
	A22	3.95		341	90		0.26	0.61	A(B15, A23)	TA basal sand	Basal sh		PL
	A24	4.4		344	89	W	0.32	.08+	A(B15)	TA basal sand	Lowest sand		CL
	A12	1.97		5	86	E	1.2+	1.05+	I(A6, A7)		Entire section		PL
NNW 341-344	A18	2.6		3	86	NW	0.48	0.77	M(A16, A15)		Entire Section		PL
	A25	4.78		350	83	W	0.65	.86+	A(B15)	BA lowest sand, TA upper sand	Upper sh, basal sand, basal sh		CL
	A26	8.12		359	87	W	1.21+	1.74+	NA		Entire section		PL
NS 350-12	b1	5.04		355	90		1.63	1.6+	na		35cm ss		P
	b3	4.94		350	88+		0.15	16+	M(b3)		rest. ss		C
	b6	4.53		357	75W		0.15	0.18					C
	b12	4.28		12	73W		0.25	0.5	A(b13)				C
	b16	2.91		0	63W		0.15	0.15	A(b15)				P
	b33	0.94		3.5	90		0.93	1.1+					P
	b43	1.98		3	86se		0.75	0.77	M(b43, b45)		in ss sh		P
NE 40-57	b2	5.06		41	87se		0.15	12+	A(b3)		ext. all beds		P
	b4	4.97		50	85se		0.57	0.38	na				P
	b5	4.83		46	78W		.15+	0.15	M		rest. ss		P, C
	b9	4.55		52	88s		0.27	0.23		b-ss, t-sh			P
	b11	4.61		52			0.01	9+					P
	b19	0		56	85se		0.15	28			15 cm ss		P
	b20	0.12		56	86se		0.15	.04+	M(b21)		ss		P
	b21	0.2		57	83se		0.15	.18+	A(b21)		ss		P w/hook
	b22	0.31		54	90		0.15	.11+	A(b23)		ss		ss
	b23	0.385		54.5	88W		0.15	.31+	M(b23, A(b25))		ss		P
ENE 58-75	b24	0.48		53	90		0.15	.14+	A(b25)				P
	b25	0.52		53	90		0.15	.23+	M(b23, b24)				P
	b26	0.58		53	83se		0.15	.23+	na				P
	b27	0.66		51.5	74se		0.15	.35+	na				P
	b28	0.77		53.5	82se		0.15	.38+	M(b29)				P
	b30	0.86		49	78se		0.15	.20+					P
	b31	0.88		55	70se		0.15	.40+					wiggly
	b34	0.94		50	89W		0.15	0.38					P
	b35	1.01		52	73se		0.3	0.19	A(b34)				P
	b36	1.06		55	86se		0.33	0.59					P
	b37	1.14		52	87se		0.15	.14	A(b38), hook		rest. ss		P
	b38	1.21		49	90		0.15						P
	b41	1.91		52	83se		.44+	0.1					P
	b45	2.2		55	na		0.15	.21+	A(b43)				
	b46	2.26		50	84se		0.15	.18+			in ss only		
	b47	2.34		54	na		0.15	0.24			ss		
	b48	2.46		54	86se		0.15	na					P
	b52	3.14		43									P
	b53	3.16		40									P
	b7	4.7		82.5	89s		0.33	.33+		t-sh, b-st	ext. all beds		P
	b10	4.55		58	87s		0.15	14+	A(b14)				P
	b13	4.48		65	85W		.39+	8+	M(b12)				P
	b15	3.77		62	79W		0.15		M				P
	b17	3.7		62	82W		0.15	1.4	na				P
	b29	0.75		70.5			0.15	.37+					wiggly

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Fract. Char.
NNW 330-346 Breakneck Creek West end of RR tunnel Don Guthrie	b32	0.86		75	90		0.51	1.32+					P
	b39	1.8		60	88		0.15	0.2	na				P
	b40	1.89		60	88se		0.15	0.11					P
	b42	1.95		61	87se		0.15	0.25	na				P
	b44	2.17		73	83n		0.2	0.47	A(b43)		in sh only		P
	b49	2.39		72	90		1.22	1.7	A(b33)		sh		
	b51	3.38		62	90		0.29	.59+	A(a17a18)				
	b54	3.38		60									P
	b55	3.44		60	80nw								P
	b56	4.8		70	87n			2.15					P
	b57	5.5		74	88nw				M, xfrac				P
	b50	2.17		342.5	85ne		0.83	1.00+	A(b49)				
	b5	4.42		330	75ne		0.13	.13+	A(b7)				C
	b14	4.4		345	72w		.84+	1.5	M(b10)		rest. sh		C
	b18	2.74		346	87w		0.15		A(b17)				P
Site 11 7-13-00-11 Breakneck Creek West end of RR tunnel Don Guthrie	A1	0.75		330	84	E	.74+	4.2+	NA		IT		PL
	A2	1.93		334	90		.92+	7.0+	M(A3)		A&B		PL
	A5	4.62		332	84	E	.42+	6.5+	M(A4)		B&C1	Calcite filled	PL
	A6	4.79		330	83	E	1.62+	8.0+	NA		A&B&C1	Calcite filled, veins parallel to A6, veins swing away from A6*	PL
	A7	7.97		329	90		SOS (A6)	SOS (A6)	NA		SOS A6		PL
	A8	5.77		330	84	E	.23+	.45	NA		SOS A6		PL
	A9	6.06		326	86	E	.85+	5.6+	NA	BA C2	SOS A6		PL
	A10	Offline @ 5.93		327	?		0.05	0.93+	NA		C1	Carbonate filled	PL
	A11	Offline @ 5.89		330	85	E	0.15	1.11	NA	TAC1	C1,C2		PL
	A12	7.29		334	90		0.02	2.18	May A(a8) M(A14)	TAC1	C2		PL
	A13	7.31		331	84	E	0.72	2.5	NA		C1,C2&B		PL
	b4	35.42		334	90		3.5	1.5	M(b3)		In sh		P
	b5	35.25		334	89e		3.4	1.5	na		In sh		P
	b6	35.2		336	82e		2.26	5+	hooks(b2)		In sh		P
ENE 60, 72	b1	37.8		342	90		2.05	3+	na		In sh		P
	b2	38.9		342	90		1.30+	2.76+	na		In sh		P
	A3	off line		60	86	SE	.08+	.13+	A(A2)		B	Spacing to next in set = 41m (not to A4), then .21m	PL
	b3	36.18		72	90		0.19	1	A(b4)		In sh		P
EW 85-276	A4	2.7		85	?		.28+	2.44+	A(A5)		B&C1		CL
	A14	N. 5m offline @ A12		276	?			C7.2	A(A12) hook		C1,C2&B		CL
	b7	30		90	82s		0.01	8	na				C
	b8	24.69		90	90		0.54	14	M				P,C
	b10	15.75		276	63e		0.04	12	A(a330@west)				C
	b11	14.14		90	85s		0.02	2.6					C
	b12	off line		275	80s		0.35	5	M(a15)				P
	A15	10.66		9	89	W	3+	2.73	A(A14, B12)		C2, C3		CL
	b9	21.09		353	82e		0.07	1.56	A(b5)				P
	a1	0.28		350	50s		6	21					P
	a2	0.55		0	na		na	1.1					C
	a4	1.6		1	82e		0.95	3	l(a3)				P
Site 12: 7-13-00-12 Ellison House Creek FID	a5	1.91		4	82e		0.45	4.8					P,C
	a6	2.12		2	88e								
	a7	2.21		0	80e								
	a8	2.4		1.5	90								
	a9	2.45		4	86								
	a10	2.55		3.5	na								
	a11	2.66		2	85e								C
	a12	2.71		3	86e								C
	a13	2.82		2	83n								C
	a14	2.86		359	70w								C

Date/Site	#	Intersect (m)	True Spacing	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
	a15	3.01		2	63w								c
	B17	3.06		359	85	E	0.19	3.0+	NA	BA IT, TA in a sand in the IT	Controlling Sand 045m		PL
	B16	3.13		355	87	E	0.81	1.0+	Poss. M(B15)	BA IT, TA in a sand in the IT	IT		PL
	B15	3.16		350	7		.87+	0.1+	Poss. A(B16)		IT		CL
	B14	3.25		355	?		0.46	4.0+	A(A17)	BA IT	IT		CL-PL
	B13	3.48		350	73	E	.28+	1.13+	A(B12) hook to S.		IT		CL, Wiggley
	B12	3.63		357.5	86	E	2	11	A(B11)		IT	Parallel about, 11m to the S. about a fracture 330/80W which is a master	CL
	B11	3.69		350	86	E	2.0+	13+	M(B12)	TA in IT		Left stepping	Flagged
	B10	3.76		354	86	E	1.2+	10+	M(A17)	BA IT		Strange intersection w/ B11 S. of line	Map view PL
	B9	4.13		355	86	E	3.0+	20+	M(B8)			Master to B8 twice	CL
	B8	4.16		350	89	E	SOS(B7)	3.5	A(B9)*			Hooks the same as B3, about B9 at both ends	CL
	B7	4.22		353	82.5	E	1.73+	9.0+	M(B6, B5)		IT		CL
	B5	4.45		354	79	E	3.14	14.79	NA				CL
	B4	4.45		340	77	E	.4+	1.4	A(B4, B7)		IT		PL-CL
	B3	4.75		0	80	E	0.84	1.7	A(B4)	TA 3. BA IT		Parallel about	CL
	B2	5.07		0	75	E	1.1+	1.8		BA IT	IT		
	B1	5.49		351	80	E	C3.13+	2.48					CL
	D-2	13.49		355	40	W	0.12	.24+		TA & BA in sand w/in IT	IS		PL
	D-1	13.79		340	32	W	0.12	0.07+		TA & BA in sand w/in IT	IS		PL
	D0	14.11		350	50	W	0.11	0.14		TA 3m sand w/in IT	IS		PL
	D1	14.52		356	86	W	0.15	0.68+		SOS (D1)	IS		PL
	D2	14.608		0	87	W	0.15	0.41		SOS (D1)	IS		PL
	D3	14.755		355	90	E	0.06	0.82+		SOS (D1), BA IS	Insand that D1 & D2 about		PL
	D4	15.175		355	88	E	0.14	1.11+		SOS (D3)	IS		PL
	D5	15.51		352	88	W	0.78	2.2+		SOS (D3)	IS		PL
	D6	15.78		355	80	W	0.41	1.45+		BA 18m sand, TA IS	IS		PL
	D7	15.92		347	81	W	0.15	0.61+		TA & BA in middle of IS	IS		CL
	D8	15.965		355	85	W	0.27	0.56+		SOS (D7)	IS		CL
	D9	16.05		353	81	W	.4	0.95+		SOS (D4)	IS		CL
	D10	16.12		357	70	W	0.12	0.31+		SOS (D7)	IS		PL
	D11	16.27		0	82	E	0.06	0.15+		SOS (D7)	IS		PL
	D12	16.58		355	87	E	1.0+	3.0+			IS		CL
	D13	16.745		355	88	W	1+	3.42+			IS		CL
	D14	16.94		356	7		0.22	0.43+			IS		PL
	D15	17.08		0	?		0.22	0.82+			IS		CL
	D16	17.15		356	?		0.2	0.31+			IS		CL
7-13-00-13 ellison hse "Q&D"	a16	1.12		330	90		0.18	3	M(a5)				
	B6	4.34		70	?		0.09+	4+	A(B7)		IT	Parallel about	CL
	a3	1.17		62	72s		0.21	1.26	(a4)				P
NS 350-4	b1			354	84								c
	c3	0.16		350	79								c
	c4	0.07		355	90								
	c5	0.04		358	86e								
	c6	0.04		358	80w								
	c7	0.2		358	84e								
	c8	0.16		10	77e								
	c9	0.08		0	89e								
	c10	0.07		0	76e								
	c11	0.05		355	89e								
NNW	a16	1.12		330	90		0.18	3	M(a5)				
	B6	4.34		70	?		0.09+	4+	A(B7)		IT	Parallel about	CL
	a3	1.17		62	72s		0.21	1.26	(a4)				P

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
7-13-00-14 Camp Meeting Point Elison House Creek 2 QD	c12	0.2		355	84e				hks into 11				
	c13	0.29		0	90								
	c14	0.67		4	84e								
	A1			340	89	E	10+	9+			ts = 13m	Entire exposure at this site has no cross joints	PL
	A2	0.37		334	88	W	7.5+	3+		TA in IS	IS		PL
	A3	0.345		336	86	W	10+	5+			Sand 0.12 m thick		PL
	B1			334	89	W	8.5+	1.5	A (20°)	BA in IS	Entire Section		PL
	B1.5	0.67		334	SOS (B1.5)	SOS (B1.5)	SOS (B1.5)	SOS (B1.5)	I (20°)	SOS (B1.5)	SOS (B1.5)		SOS (B1.5)
	B2	0.7		334	SOS (B1.5)	SOS (B1.5)	SOS (B1.5)	SOS (B1.5)		SOS (B1.5)	SOS (B1.5)		SOS (B1.5)
	B3	1.23		336	90				M (1.2m 90)				
	B4	1		345	90								
7-19-00-23 Silverthread	a1	0.25		336	90		0.02	0.03	A(a2)			2m	PL
	a4	1.62		340	87w		1.8	19+	I(a5)				PL
	a9	12.85		335	90		0.15	6					PL
	a10	15.4		342	86w		.87+	15+	I(a11)				PL
	a2	0.4		75	86w		0.16	2+	A(330 off line)				PL
	a3	0.5		80	87w		0.16	3+	A(a4)				PL
	a11	16.04		70	85s		1+	11+	I(a10)				PL
	a6	7.73		20				3					PL/CL
	a5	1.62		4	90		1.55	26+	I(a4)				PL
	a7	11.04		10	90		0.11	9+	M(n-s offline)				PL
Site 24 7-19-00-24 Mill Creek Near Lodi Cemetery	a8	11.61		0	84e		0.8	14+					PL
	A1	1.09		335	?		.23+	7.6+					PL
	A6	5.1		339	90		0.19	0.19					PL
	A7	6.64		336	?		.31+	.31+					PL
	A8	6.715		340	85	W	.31+	.31+					PL
	A9	7.7		340	83	W	.71	.71+					PL
	A11	9.36		335	?		.05+	.05+					PL
	A12	9.65		336	90		.2	.14					PL
	A15	14.38		335	90		.2+	.5					PL
	A16	14.97		332	89	W	.31+	10+					PL
	A17	15.24		337	90		.2+	20+					PL
	A2	2.29		5	90		1.5+	16.5+					PL
	A3	2.68		80	90		19+	10+					PL
	A4	3.62		75	80	E	.18+	.18+					PL
	A5	3.97		75	84	E	0.29	0.29					PL
	A10	8.56		80	?		?	?					CL
	A13	11.6		75	?		0.08	2.6					CL
	A14	13.85		78	?		0.08	2.6					CL
	A18	18.28		70	81	S	.2+	15+					PL
7-19-00-25 Lighthouse	b1	12.27		79	84so		1.5+	9+	M				p
	b2	11.8		74	84so		0.05	0.58	A(b2)				p
	b4	8.75		73	82ne		1+	3+					p
	b5	7.09		79	85nw		0.04	3+					p
	b6	6.88		78	84nw		.04+	.7+			rsfr. 4cm ss		p
	b7	5.45		77.5	84nw		0.35	5+			rsfr. 45cm ss		p
	b8	3.57		78	84se		0.09	2+			rsfr. 9cm		p
	b9	3.2		86	89se		0.08	21+					p
	b10	3.18		86	90		0.04	.26+					p
	b12	2.7		81	90		0.05	0.08					p
7-19-00-25 Lighthouse	b1	12.27		79	84so		1.5+	9+	M				p
	b2	11.8		74	84so		0.05	0.58	A(b2)				p
	b4	8.75		73	82ne		1+	3+					p
	b5	7.09		79	85nw		0.04	3+					p
	b6	6.88		78	84nw		.04+	.7+			rsfr. 4cm ss		p
	b7	5.45		77.5	84nw		0.35	5+			rsfr. 45cm ss		p
	b8	3.57		78	84se		0.09	2+			rsfr. 9cm		p
	b9	3.2		86	89se		0.08	21+					p
	b10	3.18		86	90		0.04	.26+					p
	b12	2.7		81	90		0.05	0.08					p

Date-Site	#	Intersect (m)	Spacing	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
	b14	0.31		72	84nw		1.2	6+					p
	b15	0		74	86nw		1.2	6+					p
	b11	3.1		336.5	84nw		3+	9.5+	M(b9,10,12)				p
NNW													
NINE	b3	9.2		20	75w		1+	4.5+	M(b4)				p
	b13	1.21		20	86nw		1.5	3.6	A(c14)				p
Site 26 7-19-00-26 Shaw Rd. at Rail Rd Near Courtright's House QD	A1			338	90		2.0+	5.0+	M(B9)		IS Thickest sand <= .15+ m	A's came before B's	
	A2	1.15		340	70	W	SOS(A1)	SOS(A1)	M(B's)		SOS(A1)		
	A3	0.43		340	90		SOS(A1)	SOS(A1)	M(B's)		SOS(A1)		
	A4	0.74		340	90		SOS(A1)	SOS(A1)	M(B's)		SOS(A1)		
	A5	0.74		340	85	W	SOS(A1)	SOS(A1)	M(B's)		SOS(A1)		
ENE 70-75 FID	B1			72	7	?	2.0+	2.5+	A(A9)		IS Thickest sand <= .12 m		
	B2	0.625		75	80	N	SOS(B1)	SOS(B1)	A(A9)		SOS(B1)		
	B3	0.8		72	85	N	SOS(B1)	SOS(B1)	A(A9)		SOS(B1)		
	B4	1.715		70	84	N	SOS(B1)	SOS(B1)	A(A9)		SOS(B1)	Tuffa Covered	
	B5	0.355		75	85	N	SOS(B1)	SOS(B1)	A(A9)		SOS(B1)		
	B6	0.59		75	87	N	SOS(B1)	SOS(B1)	A(A9)		SOS(B1)		
	B7	0.35		74	83	N	SOS(B1)	SOS(B1)	A(A9)		SOS(B1)		
	B8	1.5		72	7	?	SOS(B1)	SOS(B1)	A(A9)		SOS(B1)		
7-20-00-27 Lodi Mill Crk	a1	1.05		65	82n	N	0.3	1.47	A(a3)		30cm ss		p
	a2	2		66	84n	N	0.3	7.2					p
	a5	6.76		78	na		na	1.68					p
	a6	6.99		76	90		0.12	3	I(a3)	1-7.5cm st			p
	a13	15.36		75	90		0.12	2.1	I(a15)				p
	a14	15.5		77	87.5s	S	0.12	3.45+	A(a15)				p
	a17	19.78		70	85n	N	0.12	1.7					p
	a18	20.42		78	84s	S	.92+	10+	I(a16)				p
	a19	20.85		78	na		0.02	2+	A(a20)				p
	a20	22.48		76	84n	N	0.04	3.3+					p
	a22	25.5		75	86nw	NW	0.6	9.25+	I(a21)				p
	a27	32.77		74	89n	N	0.74	8+	I(a24)				p
	a28	36.34		75	90		0.74	8+	Int. a32	ext sh-l			
	a29	36.85		75	90		0.74	9+		ext sh-l			
	a30	37.68		77	80e	E	0.74	8.5+					
	a31	38.35		75	85s	S	0.74	9+					
NS 0-17	a4	6.65		0	na		na	1.34			top 2cm st		p
	a7	9.47		10	76s	S	0.07	1.5			str. 7cm st		p
	a11	12.21		15	na		na	3.25			ss		p
	a23	27.34		17	90		0.2	1.7					p
	a25	28.43		14	na		0.19	2					p
	a26	28.53		14	na		0.08	2					p
EW 280	a6	10.23		280	90		0.07	1.6+	A(a8)		ss		p
	a9	10.5		280	90		0.07	2.05			ss		c
NNE	a12	14.07		20	80n	N	0.07	1.9+	I(a14)		ss		p
NE	a21	22.7		54	88n	N	0.05	6.6					p
NNW 328-335	a3	3.91		328	90		0.12	8.5					p
	a10	11.8		335	90		0.07	3.5		1-2cm st			p
	a15	19.4		330	88s	S	0.12	5.5			ss		c
	a16	19.78		333	90		0.12	7+	M(a17)				p
	a24	28.29		335	98s	S	0.34	28+					p
	a32	40.4		330			.25+	22+					p
Site 28 7-20-00-28	A1	0.44		66	89	N	.32+	5.5	A (A32 on line 27 Karen)		Shale		PL
	A2	0.76		75	82	SE	0.02	0.4	M (A3)		Shale		PL

NS

Date-Site	#	True		Dip	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
		Intersect (m)	Spacing											
10	a14	4.49		80e	10	80e		1+	5.5+	(a5-13,15-23)				p
NNW	a30	10.17		90	334	90		30+	1.2+	(a27-29)				p
Site 30 Rhodes Rd 79-90	A1	0		80	81	80	N	0.2	2+	M(A2) A(A3)		Black Shale		PL
	A3	0.44		?	85	?	N	.18+	2+	M(A2)		SOS (A1)		PL
	A4	0.52		89	82	89	N	.18+	0.25	NA		SOS (A1)		PL
	A5	1		90	83	90		.18+	1.21	M(g) b1 485)		SOS (A1)		PL
	A6	1.08		85	85	90		.24+	1.75+	(A10)		SOS (A1)		PL
	A7	1.34		80	85	80	S	.38+	1.5+	A(g) 355*)		SOS (A1)		PL
	A8	1.42		78	82	78	S	1.7	9+	M(A7) (a10)		SOS (A1)		PL
	A9	1.67		89	79	89	N	SOS (A8)	SOS (A8)	(A10)		SOS (A1)		PL
	A11	2.5		89	85	89	S	4+	9+			SOS (A1)		PL
	A12	3.05		?	86	?	?	.65+	2.5+			SOS (A1)		PL
	A13	3.41		?	79	?	?	4+	9+			SOS (A1)		PL
	A14	4.33		80	87	80	S	4+	9+			SOS (A1)		PL
	A15	4.6		78	85	78	S	SOS (A12)	(A14)			SOS (A1)		PL
	A16	5		82	90	82	S	SOS (A14)	(A14)			SOS (A1)		PL
NS	A9.5	2.25		85	10	85	NW		SOS	M(A5,A7, A8, A11, A12, A13, A14, A15, A16)		Composite		PL
	A10	4.25		89	12	89	W	.39+	4+			SOS (A1)		PL weathered
07-24-00-31 Sawmill 330-349	a1	0		90	330	90		6+	4.75+	na		flag sh		p
	a2	0.31		90	330	90		6+	4.75+	na		SOS		p
	a3	0.65		90	335	90		2	2.5	na		SOS		p
	a4	1.61		88w	333	88w		6+	4.5	na		SOS		p
	a5	1.66		85w	333	85w		0.05	0.41	na	t-10cm ss			p
	a6	1.97		87w	332	87w		6+	4.5+	na		SOS		p
	a7	2.62		90	333	90		1.64	3	na	ish			p
	a8	3.15		90	335	90		0.75	3.5	M(75 offline.s)		SOS		p
	a9	3.46		85w	334.5	85w		4	4+	M(75 offlin.s)		SOS(B1)		p
	B7	5.18		85	330	85	E	3.0+	4.0+	NA		SOS(B1)		PL
	B6	5.35		89	334	89	W	3.0+	4.0+	NA		SOS(B1)		PL
	B5	6.5		86	349	86	W	C 3.0+	C 3.5+	NA		Composite		PL
	B4	8.3		86	330	86	W	.83+	3.5+	NA		SOS(B1)		PL
	B3	9.73		90	335	90		SOS (B1)	SOS (B1)	NA		SOS(B1)		PL
	B2	10.1		87	335	87	W	3.5+	2+	NA		SOS(B1)		PL
	B1	10.8		89	335	89	W	3+	5+	NA		IS sands <= .08m		PL
Site 34 7-25-00-34 Rhodes Rd Creek	A1	0		86	80	86	S	21+	0.98	M(A2) A(A3)		Black Shale		PL
	A3	0.53		90	75	90		.27+	2.0+	M(A2)			* SOS (A2)	
	A4	0.66		89	80	89	S		2.0+	M(g) 330*)		hook to west		
	A5	0.68		89	80	89	S		1.25+	A(A4) * M(A2)				
	A6	0.79		85	80	85	S		1.7	I (A2)				
	A7	1.05		?	81	?	?		2.53+	M(A2)				
	A8	1.125		89	80.5	89	S		2.0+	I (d 4*)			* cJ .42m W of line along A8	
	a10	2		88s	82	88s		3.75+	na					
	a11	2.25		84s	80	84s		3+	na					
	a12	2.65		89s	82	89s		3+	na					
	B1	3.005		89	81	89	S	Entire	4.0+	M(10*)		Black Shale	* Fracture offline .08m	
	B2	2.9		90	79	90	S	Saction	SOS(B1)	A(B3)*		Black Shale	* SOS(B1)	
	B3	2.88		88	80	88	N	SOS(B1)	SOS(B1)	M(B2) I(10*)		Black Shale	* SOS(B1)	
	B4	2.67		86	80	86	N	SOS(B1)	SOS(B1)	M(100*)		Black Shale	* SOS(B1)	
	B5	2.64		82	79	82	N	SOS(B1)	SOS(B1)	M(*)			** Composite continuation of * in B1	

Date-Site	#	Intersect (m)	True		Dip	Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments		Frac. Char.
			Spacing	Strike								*oj. 15m long, .33 W of line along	A3	
														PL-CL
Site 35 7-25-00-35 Shaw Rd EW FID	NS 0,10													
	A2	0.33		10	66	W	.23+	C.92	A(A1)		SOS (A1)			
	A3	1.25		0	88e		0.95	na	A(a9)					
	a1	0		85	72w		0.06	1.25+	na					c
	a2	0.17		81	72nw		0.06	1.25	na					c
	a3	0.45		89	90		0.08	3.41	na					p.c
	a4	0.68		85	90		0.02	1	A(a6) hk	t-ss				c
	a5	0.88		98	90		0.04	0.45	A(a6) hk					c
	a6	1.09		95	80sw		0.05	1.5+	M(a4,a5)					p
	a7	1.27		84	75nw		0.04	4+	M					c
	a8	1.47		89	80nw		0.13	1.24	A(a7)hk					c
	a9	1.55		90	84nw		0.14	1.09	A(a10) hk					p
	a10	1.85		86	77se		0.11	2.25	M(a9)					c
	a11	2.15		277			0.02	1	A(a12) hk					p.c
	a12	2.38		82	90		0.04	2+	M(a11,a13)					c
	a13	2.4		295	90		0.04	1+	A(a12) hk					c
	a14	2.51		90	60nw		0.06	1	na					c
	a15	2.65		78	65nw		0.04	1.5	M					c
	a16	2.76		285	74nw		0.05	0.8	A					p
	a17	3.03		85	84nw		0.02	1	M					c
	a18	3.24		84	89nw		0.11	2.75+	na					c
	a19	3.35		86	80nw		0.05	.80+	M(a20)					c
	a20	3.37		90	90		0.04	2.2+	A(a19)			.08m Sand	Dies out to the east	PL
B17	3.75		79	?	?	.03+	1.0+	NA			SOS(B16)	*Hook	CL	
B18	3.7		87	?	?	?	0.08	1	A(B16)*		.19m Sand	*Hook	CL	
B15	7.59		86	?	?	?	.20+	3.5+	A(B2)*		.06m Sand		PL	
B14	6.77		93	?	?	.02+	1.1	A(B2)			.05m sand & .06m sand with parting surface in-between	* offline fracture, hook	PL-CL	
B13	6.43		84	90		.06+	1.45	A(B2,*)			.35m sand	*Hook	CL	
B12	6.19		87	?	?	.02+	1.3+	M(B6)			SOS(B5)		PL	
B11	6.14		85	?	?	.02+	1.4	A(B5)*			.35m sand w/ parting surfaces	* offline fracture 1m to west	PL	
B10	5.425		76	83	N	.40+	1.4	A(340)*, M(B8)			Sand < .11	* offline fracture 1m to west, ** Hook	CL	
B9	5.15		81	75	W	.21+	1.6	A(340)*, A(B8)**			.06 Sand	Hook	CL	
B7	5.1		80	?	?	.06+	1.1	A(340)*, A(B9)**			Sand <=.07		PL	
B6	4.93		84	?	?	.21+	2.5+	NA			.08 Sand	* offline fracture 1m to west	PL	
B5	4.81		78	?	?	.06+	1.4	A(340)*			SOS (B12)	* offline fracture	PL	
B4	4.615		80	?	?	.12+	4.0+	M(B14), A(*)			SOS (B12)	Clocks Twist Hackles, *Hook	PL	
B3	4.39		93	90		.02+	1.2+	A(B13)*			Sand <=.02m		CL	
B1	4.17		92	?	?	.30+	1.3+	NA						
ENE 70-72														
	B8	5.28		70	84	N	.06+	1.9	A(340)*, A(B7)**		.11 sand	* offline fracture 1m to west, ** Hook	CL	
	B16	3.96		72	?	?	.10+	2.0+	M(B18)		SOS(B15)		CL	
NNE														
	B2	7.13		37	80	W	.33+	3+	M(B1,B3,B4)		SOS(B1)			PL
07-26-00-36 Silverthread EW 75-275														
	a1	0.13		78	86s		0.71	1.17	M(a2,a7)	t-ls, b-sh				p
	a3	0.3		79	88s		0.02	1.35	A(335)		12 cm ss			p
	a4	0.88		80	90		0.01	1.21	(a7) A(aos a3)	rst. 1cm sh				p
	a5	0.98		78	82s		0.01	1.35	A(aos a3), (a7)	ss #4				p
	a6	1.5		76	82s		.05	1.35	M(a7) A(aos a3)	in bot ss sh				p
	a8	1.32		75	90		1.85	4+	M(a9,10) A(aos a3)					p
	a11	6		275	84n		0.05	1.13	M(a9,a10) A(a9)					p
	a12	6.78		75	90		1+	8+						p
	a13	7.1		76	89s		0.06	3+						p
	a14	9.8		78	88n		0.02	2.2	M(a22) (a15)					p
	a16	10.52		78	90		0.84	7.35	(a15)					p
	a17	11.12		76	89n		0.35	2	A(a15)					p
	a18	11.27		87	89n		0.38	2.1	M(a22)(a15)					p
a21	12.67		79	90		0.6	2	A(a14)					p	
a23	14		76	90		4+	15+						p	

Date/Date	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
NNW 330-338	a2	0.13		335	90		71	2+	A(a1)	ss a1			p
	a7	off		332	90		0.51	0.85	I(a4.5), A(a1.6)	b-1cm sh			p
	a9	4.21		330	85W		0.3	4.83	A(a8.12), M(a11)		in bot ss.sh		p
	a10	5.54		338	85W		0.2	4	A(a8.a11)		in bot ss.sh		p
	a15	7.9		334	89W		0.63	5+	M(a17.18.20)				p
	a19	12.42		333	90		0.3	1.8	I(a17)				p
	a22	10.1		332	90		0.38	1.5	A(a14.a18)				p
	a20	12.52 off		64	89N		0.6	2	A(a15)				p
	1	0		75	83	S	2.5+	13.0+			IS, Sands <= .05m	*Eroded	PL*
	2	2.6		75	86	S	.41+	40.0+			SOS(1)	*En Echelon	PL*
ENE 65-80	3	2.73		80	7		.41+	40.0+			SOS(1)		PL*
	5	3.05		72	84	S	.20+	1.5+	I(8.10.12), A(14)		SOS(1)		PL
	7	5.42		71	90		.08+	1.05	A(4.8)		.08m Sand		PL
	9	5.63		70	7		?	1.4	A(4.8)		SOS(1)		PL
	11	6.42		75	84	SE	.20+	3.0+	I(8) A(4) I(12)		SOS(1)	Controlled Twist Hackles	PL
	13	7.43		65	90		0.23	40.0+	I(4.8.10.12), A(14)		.25m Sand w/ Parting Surface		PL
	20	9.96		75	90		.27+	40.0+	A(FID)		IS	Controlled Twist Hackles	PL
	21	12.18		75	90		.12+	40.0+			IS		PL
	22	12.27		75	85	S	3.0+	40.0+			IS		PL
	4	3.34		4	90		.23+	6.0+	NA		SOS(1)	*Curving into Parallelism w/8	PL*
NS	6	5.14		334	?		.10+	0.9	A(5)*		.05m Sand	*Hook	PL
	8	5.48		335	86	E	.43+	6.0+	I(2.3.9.11.13), M(5.7)		SOS(1)		PL
	10	5.74		342	7		.45+	6.0+	I(2.9.13.16.10), M(5)		SOS(1)		PL
	12	6.85		349	85	SE	.45+	6.0+	I(2.3.13), M(A(11))		SOS(1)	*Curving into Parallelism w/14&10	*
	14	8.35		335	7		2.0+*	6.5+			IS, Sands <= .15m	FID, Composite height of FID = entire section (10m)	PL
	15	8.38		334	?		SOS(14)	SOS(14)			SOS(14)		SOS(14)
	16	8.4		336	?		SOS(14)	SOS(14)			SOS(14)		SOS(14)
	17	8.45		340	89	S	SOS(14)	SOS(14)			SOS(14)		SOS(14)
	18	8.55		345	89	S	SOS(14)	SOS(14)	I(10)		SOS(14)		SOS(14)
	19	8.96		275	85	S	1.0+	40.0+	I(FID.12.10.8.4)		SOS(1)		PL
ENW	a1	0.67		340	90		0.93+	3+	M(off line 75)		ss.sh		p
	a3	1.55		338	90		0.2	2.5+	I(a4)	t-2cm ss			p
	a4	1.83		335	86W		0.05	2.25+		t-sh			p
	a5	2.16		330	90		0.08	2.1	I(a7)		ss		p
	a7	2.34		334	88		0.02	1.5	I(a8), A(a2), M(a7)				p
	a9	2.97		341	90		1	4+	M(a8)				p
	a10	3.07		340	90		2	15+					p
	a2	1.07		75	90		0.36	13.63	I(a1), A(b1)				p
	a6	2.18		74	84S		0.12	13.5	I(a1.a3.a4.a5.a7)				p
	a8	2.61		75	81		0.06	2					p
ENE 74-81	a11	4.03		75	90		0.15	15+	A(b1)				p
	a12	4.34		75	90		0.15	15					p
	a13	5.55		81	89N		0.1	7.5	I(a7)		ss		p
	a1	0		335	86W		0.19	1.05	I(a1.a8)		blk sh, ss		p
	a3	0.37		332	86W		0.06	0.52	I(a2.a4)		tan ss		p
	a5	0.61		330	na		0.03	0.2	A(a4), I(a6)		ss		p
	a6	0.94		330	90		0.2	1.5	I(a3.a7), A(a4)		blk sh		p
	a8	1.08		334	90		0.25	2	I(a1.a4.a6.a12)		blk sh		p
	a9	1.12		335	87W		0.17	0.79	I(a1.a6.a12)		blk sh		p
	a10	1.6		328	90		0.12	1+	I(a12)		blk sh		p
Site 39 7-26-00-39 Sherry Burrow's Property Mill Creek	a1	0		335	86W		0.19	1.05	I(a1.a8)		blk sh, ss		p
	a3	0.37		332	86W		0.06	0.52	I(a2.a4)		tan ss		p
	a5	0.61		330	na		0.03	0.2	A(a4), I(a6)		ss		p
	a6	0.94		330	90		0.2	1.5	I(a3.a7), A(a4)		blk sh		p
	a8	1.08		334	90		0.25	2	I(a1.a4.a6.a12)		blk sh		p
	a9	1.12		335	87W		0.17	0.79	I(a1.a6.a12)		blk sh		p
	a10	1.6		328	90		0.12	1+	I(a12)		blk sh		p
	a1	0		335	86W		0.19	1.05	I(a1.a8)		blk sh, ss		p
	a3	0.37		332	86W		0.06	0.52	I(a2.a4)		tan ss		p
	a5	0.61		330	na		0.03	0.2	A(a4), I(a6)		ss		p

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
ENE 71-80	a11	1.84		332	86e	0.08	1.21	la12		blk sh		p
	a14	2.95		326	na	0.04	0.12	la13		ss		c
	a15	3.3		332	86n	0.35	3	la13		sh		p
	a16	4.9		335	64n	0.25	0.49	la17(a122)		sh only		p
	a18	5.88		331	84e	0.12	1.75	M(a19)(a17)		ss sh		p
	a19	5.41		334	80e	0.02	0.39	la17(a22)(a18)		sh only		c
	a20	5.68		334	90	0.31	1+	la17 a22				p
	B12	9.94		338	?	?	12.0+	(B10, B11, B13, B14, B15, B17, B18, B19)		IS		PL
	B9	10.16		336	90	.75+	12.0+	(B4, B5, B6, B7, B8, B10, B11, B13, B14, B15, B16, B17, B18)		IS		PL
	a2	0.3		80	84s	0.06	0.95	la2 a3		tan ss		p
	a4	0.5		78	90	0.04	3+	M(a3, a5, a6)(a7)				p
	a7	1.06		79	90	0.08	2	M(a4)(a6)		blk sh		p
NS	a12	2.13		76	90	0.09	2.5	la3, a5, a6, a8, a11		ss		p
	a13	2.55		80	87.5	0.1	1.25	la12(a14, a15)		ss		p
	a17	4.9		76	85s	0.1	2	la16(a9, a18, a20)		ss sh		p
	a21	5.68		77	90	0.25	1.67	la20(a19)		sh only		p
	a22	6.27		75	86n	1	5.5	M(a16)(a19, a20, a23)	TA a .07 m Sand	sh only		p
	B2	17.07		75	?	.05+	10.0+	M(B1)		SOS(B1)		PL
	B3	15.62		74	90	.05+	10.0+	M(B1)		SOS(B1)		PL
	B4	14.61		74	?	?	10.0+	A(B1)(B9)		SOS(B1)		PL
	B5	13.63		71	?	?	10.0+	A(B1)(B9)		SOS(B1)		PL
	B6	12.94		75	?	?	10.0+	A(B1)(B9)		SOS(B1)		PL
	B7	12.26		75	?	?	10.0+	A(B1)(B9)		SOS(B1)		PL
	B8	12.12		76	?	?	10.0+	A(B1)(B9)		SOS(B1)		PL
NNW 325-335	B10	10.1		73	?	?	10.0+	(B9, B1, B12)(B1)		SOS(B1)		PL
	B11	10.04		75	?	?	10.0+	(B9, B12)(B1)		SOS(B1)		PL
	B1	17.33		8	89	2.0+	12.0+	M(A2, B2, B4, B10, B11, B13, B14, B7)(B3)		IS, Sands <= .18m		PL
	1	0.25		335						Black Shale		
	2	4.25		335						Black Shale		
	3	5.75		327						Black Shale		
	4	6.45		332						Black Shale		
	5	8.35		325						Black Shale		
	6	11.7		330						Black Shale		
	7	12.75		335						Black Shale		
	8	14.4		330						Black Shale		
	9	15.35		330						Black Shale		
	10	19.75		335						Black Shale		
ENE 74-75	11	22.75		335						Black Shale		
	12	23.4		330						Black Shale		
	13	26.5		325						Black Shale		
	A1			74	90	2.5	3	M(C1)		Black Sh, w petro smell		PL
	A2	0.6		75	90	SOS(A1)	SOS(A1)			SOS(A1)		SOS(A1)
	A3	0.2		75	89	SOS(A1)	SOS(A1)			SOS(A1)		SOS(A1)
	A4	0.31		74	89	SOS(A1)	SOS(A1)			SOS(A1)		SOS(A1)
	A5	0.37		74	90	SOS(A1)	SOS(A1)			SOS(A1)		SOS(A1)
	A6	0.6		74	90	SOS(A1)	SOS(A1)			SOS(A1)		SOS(A1)
	A7	0.45		75	89	N	SOS(A1)			SOS(A1)		SOS(A1)
	B1			5	80	E	2.5			Black Shale SOS(A1)		PL
	B2	0.65		358	85	E	SOS(B1)			SOS(B1)		SOS(B1)
	B3	0.96		8	90		SOS(B1)			SOS(B1)		SOS(B1)
NS 358-5	B4	0.73		358	86	W	SOS(B1)			SOS(B1)		SOS(B1)

*These two sets are mutually abutting in some areas it seems as if the O's are the masters an then vice versa.

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
NNW													
07-27-00-42 Shaw Rd. C	C1			330	57	W	0.5	1	A(12)		Black Shale	Low Dipping, Cuts a Concretion	Cl
	a1	1.81		82	90		0.15	0.59	A(a3)		sh	120cm	P
	a2	2.07		78	90		0.45	0.92	sos a1		sos a1		P
	a3	2.32		76	90		1.25+	2+	M(a6,322,336)		sos a1		P
	a4	2.6		76	86n		0.7	0.32	na		sos a1		P
	a5	2.89		75	86n		1+	1.03	M(a6)		sos a1		P
	a7	3.19		80	90		0.66	0.77	na		sos a1		P
	a8	3.3		75	89s		0.35	0.32	na		sh		P
	a9	3.38		76	84s		0.54	0.62	na		sh		P
	a10	3.51		76	90		0.8+	0.65	A(a13)		sh		P
	a11	4.06		76	na		.51+	0.76	M(a11,a12,A(a10))		sh only		P
	a12	4.25		79	90		0.25	0.65	A(a13)		sh		P
	a14	4.75		76	90		0.06	0.56	A(a13)		lower sh		P
	a15	5		77	85n		1	0.84	A(a15)/M(a16)		sos a1		P
	a17	5.57		76	90		1.25	1.5	M(a16)		top ls		P
NS													
350-11	a13	5.43		10	90		0.7	1.5	M(a10,a11,a12,a15)		sos a1		P
	a6	2.58		11	88e		0.26	0.63	A(a3,a5)		sos a1		P
	a16	5.4		350	84e		0.15	0.55	A(a15,17)		lower sh		P
ENE													
7-27-00-43 Shaw Rd Creek 2 RDJ 8	1	0		76	90		5+	10.0+	I(14,17)		Shale		PL
	2	0.22		79	90		8.6+	25.0+	I(14,17)		SOS (1)		PL
	3	0.84		77	85	N	0.35	4	A(4)		SOS (1)	* As a Hook	PL
	4	0.69		77	82	S	8.6+	25+	M(14,3)I(17)		SOS (1)		PL
	5	1.8		76	?	S	8.6+	25+	I(14,17)		SOS (1)		PL
	6	1.28		77	85	S	8.6+	25+	I(14,17)		SOS (1)		PL
	7	1.41		76	84	S	8.6+	25+	M(8)I(14,17)		SOS (1)		PL
	9	1.855		78	90		8.6+	25+	M(8)I(14,17)		SOS (1)		PL
	10	1.95		78	89	N	1.0+	10+	I(14,17)		SOS (1)		PL
	11	2.11		78	90		8.6+	25+	I(14,17)		SOS (1)		PL
	12	2.31		77	90		8.6+	25+	M(13)I(14,17)		SOS (1)		PL
	13	2.39		76	79	N	0.15	2	A(14,17)12		SOS (1)	* As a hook	PL
	15	3.16		79	90		.11+	3	A(6*,17)M(20)		SOS (1)	* Hook at both ends	PL
	16	3.28		76	80	N	8.6+	25+	M(15)I(14,17)		SOS (1)		PL
	18	3.72		77	85	S	1.0+	10.0+	A(17,14)		SOS (1)		PL
	19	4.35		79	86	S	1.0+	7.0+	A(20)I(14,17)		SOS (1)	* As a hook	PL
	21	5.22		74	88	S	.07+	1.7	M(20)A(17)I(14)		SOS (1)		PL
	22	6.2		77	85	S	8.6+	25+	A(17)I(14)		SOS (1)		PL
	23	7.12		76	90		8.6+	25+	M(24)A(17)I(14)		SOS (1)		PL
	24	7.54		70	40	S	.13+	4.5	A(23)I(17)		SOS (1)	* As a Hook	CL
	25	8.4		76	89	S	8.6+	25+	A(17)		SOS (1)		PL
NS													
350-5	17	3.43		5	89	E	7.5+	6.0+	M(15,18,21,22,23,25)		SOS (1)	17 is very PL and therefore a true fracture, this being the case its relationship with 14 shows antitwists rotation (see diagram)	PL
	20	4.9		350	86	W	8.6+	25+	M(19)A(21,15)		SOS (1)		CL
ENE													
07-27-00-44k Shaw Rd. C FID see notebook	a1	0.55		77	90		0.01	1.5	A(343w)		blk ss		P
	a2	0.69		76	90		0.02	2+			blk ss		P
	a3	1.13		76	90		0.05	3+	hks(343)		blk ss		P
	a4	1.39		76	90		0.05	3+			blk ss		P
	a5	1.46		76	90		0.16	3+			na		P
	a6	1.72		76	90		0.15	3			blk ss		P
	a8	1.96		76	90		0.16	3+	M(a7)		blk ss		P
	a9	2.18		76	90		0.16	3+					P
	a10	2.45		78	90		0.06	2+					P
	a11	2.67		75	90		0.08	3+					P
	a12	2.95		76	90		0.08	3.5+					P
	a13	3.02		76	90		0.08	3.5+					P
	a14	3.23		76	90		0.06	3.5+					P
	a15	3.42		75	90		0.06	3.5+					P
	a16	4.33		75	90		0.06	3.5+					P

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
8-2-00-44c RDJ 10 Creek at the N. end of Lodi Point used tape measure and ruler	a17	4.46		76	90		0.06	3.5+					p
	a18	4.73		76	90		0.06	3.5+					p
	a7	off 12cm		314	64e		0.16	27			bik ss		p
	1	0		9	90		10+ in	180+ in	(2,5,8)		Black Shale		PL
	9	2.88		9	90		10+	315	(3,8)		SOS (1)		PL
	14	5.13		9	88	E	7+	252+	M(9)(13)		SOS (1)		PL
	15	5.21		11	83	E	7+	252+	(25,13)		SOS (1)		PL
	19	5.72		10	82	W	5+	315	(25)		SOS (1)		PL
	28	6.86		11	84	E	1+	36	(25)		SOS (1)		PL
	33	7.51		349	74	W	1.5+	36+	A(25)		SOS (1)		PL
NNE 23-26	34	7.82		15	78	E	2+	36	A(31)		SOS (1)		CL
	35	7.87		9	75	E	1+	36+	NA		SOS (1)		CL
	11	3.45		23	90		1.5	22	A(8)		SOS (1)		CL
	16	5.34		26	87	W	7+	315	(25)A(15')		SOS (1)	*As a hook	PL
	27	6.69		26	90		3	31	A(25)(25)		SOS (1)		PL
	6	1.83		45	83	N	4.5+	198	(9)A(11)		SOS (1)		PL
	30	7.14		45	75	W	1+	108	(25,28)		SOS (1)		PL
	8	2.29		80	89	N	7+	252	M(7,10,11,13,14)(14,19)		SOS (1)		PL
	25	6.45		88	88	N	10+	360+	(20,21,19,12,13,14,26,27)		SOS (1)		PL
	NNW 329-342	12	4.18		338	78	W	18+	324	M(6)(8)		SOS (1)	
13		4.66		325	95	W	8+	52	A(8)(14)		SOS (1)		PL
18		5.60		330	86	E	7+	108	(25)		SOS (1)		PL
20		5.83		342	89	W	4+	108+	A(25)		SOS (1)		PL
21		5.88		354	90		6+	108	A(20)(25)		SOS (1)		PL
22		5.97		333	7	?	12+	288+	A(20)(26)		SOS (1)		PL
23		6.05		335	90		12+	288+	M(25)		SOS (1)		PL
26		6.48		330	85	W	1.5+	108+	(25)		SOS (1)		PL
29		7.02		333	7	?	1+	108	A(27)		SOS (1)		PL
31		7.18		329	90	?	1+	108	(23,28)		SOS (1)		PL
NS 350-9 twist, Shaw	32	7.34		334	?	W	0.5	18	A(34,31)(25)		SOS (1)		CL
	a1	0		9	89e		0.05	0.04	(all 80,9)				p
	a2	0.62		1	81e		0.09	2.5+	M(80s)				p
	a4	4.71		4	49w		0.05	0.23	sos a3				p
	a5	5.08		5	69		0.07	0.3	sos a3				p
	a11	5.81		9.5	88w		0.11	4.5	M(a8,a12)				p
	a13	7.1		350	90		0.04	1.15	(80,8,n)				cl
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
NNW 325-328	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	NNE 53,56	a6	5.29		328	69w		0.18	1.14	(a9)(a7)			
a7		5.33		325	90		0.03	0.2	A(a6)hook				cl
a10		5.75		323	88w		0.02	0.1	A(a9,a8)				p
a3		4.06		3	84w		0.03	0.17	(80m)				p
a6		5.29		328	69w		0.18	1.14	(a9)(a7)				cl
a7		5.33		325	90		0.03	0.2	A(a6)hook				cl
a10		5.75		323	88w		0.02	0.1	A(a9,a8)				p
a3		4.06		3	84w		0.03	0.17	(80m)				p
a6		5.29		328	69w		0.18	1.14	(a9)(a7)				cl
ENE 72-90		a7	5.33		325	90		0.03	0.2	A(a6)hook			
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	8-2-00-45c Creek at the N. end of Lodi Pt RDJ 11	a10	5.75		323	88w		0.02	0.1	A(a9,a8)			
a3		4.06		3	84w		0.03	0.17	(80m)				p
a6		5.29		328	69w		0.18	1.14	(a9)(a7)				cl
a7		5.33		325	90		0.03	0.2	A(a6)hook				cl
a10		5.75		323	88w		0.02	0.1	A(a9,a8)				p
a3		4.06		3	84w		0.03	0.17	(80m)				p
a6		5.29		328	69w		0.18	1.14	(a9)(a7)				cl
a7		5.33		325	90		0.03	0.2	A(a6)hook				cl
a10		5.75		323	88w		0.02	0.1	A(a9,a8)				p
a3		4.06		3	84w		0.03	0.17	(80m)				p
ENE 72-90	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
8-2-00-45c Creek at the N. end of Lodi Pt RDJ 11	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
ENE 72-90	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
8-2-00-45c Creek at the N. end of Lodi Pt RDJ 11	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
ENE 72-90	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
8-2-00-45c Creek at the N. end of Lodi Pt RDJ 11	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
	a6	5.29		328	69w		0.18	1.14	(a9)(a7)				cl
	a7	5.33		325	90		0.03	0.2	A(a6)hook				cl
	a10	5.75		323	88w		0.02	0.1	A(a9,a8)				p
	a3	4.06		3	84w		0.03	0.17	(80m)				p
ENE 72-90	a6	5.29		328	69w		0.18</						

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
8-3-00-46 Creek at the N. end of Lodi Pt RDJ 13A	26	.696		80	90		SOS (1)	SOS (1)			SOS (1)		
	50	1.594		72	90		SOS (1)	SOS (1)			SOS (1)	*Master to fracture cleavage striking 290-320°	
	51	2.019		72	90		SOS (1)	SOS (1)			SOS (1)		
	52	2.057		73	90						SOS (1)		
	2	.095		275	25	SW					SOS (1)		
	3	.101		275	SOS(2)	2)					SOS (1)		
	4	.108		275	SOS(2)	2)					SOS (1)		
	5	.133		275	SOS(2)	2)					SOS (1)		
	6	.165		275	SOS(2)	2)					SOS (1)		
	7	.178		275	SOS(2)	2)					SOS (1)		
	8	.187		275	SOS(2)	2)					SOS (1)		
	10	.279		295							SOS (1)		
	11	.292		295							SOS (1)		
	12	.305		295							SOS (1)		
	13	.321		295							SOS (1)		
	14	.33		295	24	SW					SOS (1)		
	15	.345		295							SOS (1)		
	16	.356		295							SOS (1)		
	17	.371		295							SOS (1)		
	18	.387		295							SOS (1)		
	19	.406		295							SOS (1)		
	20	.419		295							SOS (1)		
	21	.438		295							SOS (1)		
	22	.448		295							SOS (1)		
	23	.451		295							SOS (1)		
	27	.749		296	35	SW					SOS (1)		
	28	.826		296							SOS (1)		
	29	.838		296							SOS (1)		
	30	.864		296							SOS (1)		
	31	.933		296							SOS (1)		
	32	.978		296							SOS (1)		
	33	.997		305	45	SW					SOS (1)		
	34	1.029		305							SOS (1)		
	35	1.041		305							SOS (1)		
	36	1.067		305							SOS (1)		
	37	1.082		305							SOS (1)		
	38	1.105		305							SOS (1)		
	39	1.118		305							SOS (1)		
	40	1.113		305							SOS (1)		
	41	1.143		305							SOS (1)		
	42	1.168		305							SOS (1)		
	43	1.175		305							SOS (1)		
	44	1.245		320	44	SW					SOS (1)		
	45	1.257		320							SOS (1)		
	46	1.295		320							SOS (1)		
	47	1.308		320							SOS (1)		
	48	1.441		325	45	SW					SOS (1)		
	49	1.499		325							SOS (1)		
8-3-00-46 Creek at the N. end of Lodi Pt RDJ 13A	A1	0.01		81	82	S	1.5+	4+	M(A2)A2)	dis into sh above & below	Shale		PL
	A3	0.34		71	64	S	5B+	0.95	M(A2)A(A1)		SOS (A1)		PL

ash layer allowed slip

to the SW

causing intense

fracture cleavage

isolated to certain beds

any fracture w/o
a orientation is
considered to be w/in
the fracture cleavage
which is approximately
290-325°

Date/Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Fract. Char.
8-3-00-47 Creek at N. end of Lodi Pt. RDJ 13 FID	A4	0.49		74	69.5	S	.32+	1.75	A(*)		SOS (A1)	*off line fracture orientation 350/86	PL
	A5	0.54		79	80	S	.7	1.9+	M(*)		SOS (A1)	* offline at A4	PL-CL
	A6	0.92		72	80	S	.75+	5+	NA		SOS (A1)		PL
	A7	1.43		76	80	S	.90+	5+	NA		SOS (A1)		PL-CL
	A8	1.65		77	76	S	.01	2	NA		SOS (A1)		PL
	A9	1.70		75	80	S	.90+	7+	NA		SOS (A1)		PL
	A10	1.99		73	81	S	.16+	2	A(A11)		SOS (A1)		PL
	A11	2.05		76	69	S	.01	3	M(A10)		SOS (A1)		PL
	A12	2.37		76	75	S	.75+	8+	NA		SOS (A1)		PL
	A13	2.49		77	79	S	SOS (A12)	SOS	NA		SOS (A1)		PL
	A14	2.84		74	74	S	.02	3	NA		SOS (A1)		PL
	A15	2.965		74	80	S	.02	0.58	A(*)		SOS (A1)	*Abuts a x-joint off line striking 339	PL
NW 318-332 RDJ 13 FID	A16	3.06		77	79	S	.50+	8+	M(A17)A(A18)		SOS (A1)		PL
	A18	3.42		79	68	S	.04	0.81	M(A17)		SOS (A1)		PL
	A19	3.72		75	84	S	.75+	8	NA		SOS (A1)		PL
	A1	0		329	86	E	.023	5+	NA		Shale		PL
	A2	0.35		330	86	E	.03	1.2	NA	BA in Shale	SOS (A1)		PL
	A3	.38		329	90		.00+	3	NA		SOS (A1)		PL
	A4	.485		327	85	E	SOS (A3)	SOS (A3)	A(A21,A22), A10, A17		SOS (A1)		PL
	A5	.52		328	80	E	SOS (A3)	SOS (A3)	M(A6, A6)(A10, A17, A21, A22)		SOS (A1)		PL
	A6	.55		330	85	E	.10+	4+	A(A5)*M(A9)		SOS (A1)	*Hook	PL*
	A7	.575		318	85	E	.03+	0.55	A(A17)		SOS (A1)		PL
	A8	.62		328	85	E	.04+	1	{A10, A17, A21, A22}A(A5*)		SOS (A1)	* Hook	PL*
ENE 74-79	A9	.65		325	85	E	.11+	2	A(A6)*A17, A21, A22		SOS (A1)	*Hook	PL*
	A11	.755		330	7	7	.05	1.09	{A10, A17, A9, A9}		SOS (A1)		PL
	A12	.765		329	7	7	.05	0.56	A(A10, A22){A17, A21}		SOS (A1)		PL
	A13	.81		328	84	E	.08+	2	A(A10)*{A17, A21, A23}		SOS (A1)	*As a hook	PL
	A15	.985		326	85	E	.01	2	{A1, A10, A21, A22}		SOS (A1)		PL
	A19	1.715		332	60	W	.04+	0.18	A(A21, A17)		SOS (A1)		CL
	A20	1.755		332	84	N	.03+	0.44	{A21, A17}		SOS (A1)		CL
	A10	.70		74	80	S	.03	1.55	{A4, A5, A8, A9, A11, A15, M(A14, A16, A12+W17) A(A13)}		SOS (A1)		PL
	A17	1.27		77	90		.04+	2.2+	M(A7, A16, A18, A19){A5, A8}		SOS (A1)		PL
	A21	1.88		79	90		.05+	3+	{A4, A5, A9, MA18, A19}{A23}		SOS (A1)	* Hook	PL*
	A22	2.49		79	84	S	.05	3+	{A4, A5, A8, A9}{A23}		SOS (A1)	*As a Hook	PL
	A23	2.76		8	85	N	.02	6+	M(A21, A17, A22)		SOS (A1)		PL
ENE 66-73 RDJ 14 lodi	a1	0		65	90		.05	.70+	na		blk sh		P
	a2	0.05		69	90		.03	0.38	curves into a1, west				P
	a3	0.2		71	84n		.05	1+	na				P
	a4	0.31		73	90		.04	0.61	na	upper dzn			P
	a5	0.365		70	85n		.078	3+	na				P
	a6	0.46		70	88n		.084	3	na				P
	a7	0.7		66	89n		.07	6	A(340w)				P
	a8	0.95		70	90		1+	7.25+					P
	a9	1.09		68.5	90		1.04+	3.5	A(330w)				P
	a10	1.34		68	69s		.01	0.73					P
	a11	1.365		70	72s		.087	2+					P
	a13	1.845		70	89n		1.12+	11++	M(a12, a15)				P

Date/Site	#	Intersect (m)	Spacing	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Fract. Char.
08-04-00-52 16 falls crk	b1	6		81	86s		0.03	1.54					p
	b2	5.26		78	84s		8	1.7					p
	b3	5.15		79	90		0.03	1.21					p
	b4	5.1		78	76s		0.05	2+					p
	b6	4.98		80	85s		0.06	0.9					p
	b8	4.41		76	85s		0.17	1.12					p
	b10	4.34		82	80s		0.17	1					p
	b11	3.67		79	90		0.13	3.92					p
	b12	3.5		76	89s		0.13	1.7					p
	b13	2.98		76	86s		0.2	11.25					p
	A8	1.315		11	90		0.1	1.2+					PL
	A9	1.465		8	89	W	0.03	0.8					PL
08-04-00-52 16 falls crk	A13	2.82		5	7	?	.15+	4+					PL
	b7	4.44		15	79NW		0.05	0.44					p
	b9	4.34		345	75w		0.17	0.23					p
	a1	0.931		81	86e		.70+	4.34					p
	a2	1.15		75	87w		0.32	3					p
	a3	1.4		80	71w		0.63	1.75					p
	a4	1.85		78	82w		0.8	3+					p
	a6	2.54		79	90		1	3.5+					p
	a7	2.92		80	89w		1	2+					p
	a8	3.06		79	90		0.4	0.4					p
	a9	3.66		72	82w		0.7	0.64					gp
	a11	3.82		82	80w		0.74	2+					c
	a12	3.9		75	85w		0.12	0.2					c
NNW 340-345	a14	4.2		85	90		0.74	1.9					p
	a15	4.6		80	90		0.6	1.6					p
	a16	5.07		80	85w		3.5	4.5					p
	a17	7.43		79	60w		7	17+					p
	a22	8.57		78	90		0.21	3.35					p
	a23	8.57		80	90		1.10+	2.75					p
	a19	5.49		82	76e		0.07	0.45					p
	a21	6.15					0.21	0.4					p
	a16	4.8		345	84n		0.21	0.4					p
	a18	5.3		340	75n		4+	7+					cl
	a22b	8.15		340	90		0.4	0.61					cl
	a10	3.8		0	49n		0.1	0.12					gp
	a20	5.75		4	70s		0.1	0.61					cl
NS 0-4	a5	2.37		265	58se		0.1	0.87					p
	a13	4.07		280	80se		.42	0.7					p
	a10	3.8		0	49n		0.4	0.12					gp
	a20	5.75		4	70s		0.1	0.61					cl
	a5	2.37		265	58se		0.1	0.87					p
	a13	4.07		280	80se		.42	0.7					p
ENE 76-85	1	0		95	52	S	0.8	7					PL
	3	.36		78	90		0.8	16+					PL
	4	1.85		81	85	S	0.4	9+					PL
	9	2.96		76	89	S	0.4	8+					PL
	10	3.32		79	90		0.4	8+					PL
	12	3.5		80	85	S	0.4	13+					PL
	13	3.885		76	90		0.4	13+					PL
	14	4.34		81	90		0.4	13+					PL
	16	4.6		81	86	S	0.4	13+					PL
	17	4.63		80	?	?	0.4	13+					PL
	20	5.10		81	89	S	0.4	13+					PL
	22	6.99		79	90		0.2	4.5					PL
ENE Sixteen Falls Creek	23	7.43		81	86	S	.16+	4+					PL
	5	2.21		6	76	W	0.01	0.23					PL
	7	2.55		9	90		0.4	4.5+					PL
	1	0		95	52	S	0.8	7					PL
	3	.36		78	90		0.8	16+					PL
	4	1.85		81	85	S	0.4	9+					PL
	9	2.96		76	89	S	0.4	8+					PL
	10	3.32		79	90		0.4	8+					PL
	12	3.5		80	85	S	0.4	13+					PL
	13	3.885		76	90		0.4	13+					PL
	14	4.34		81	90		0.4	13+					PL
	16	4.6		81	86	S	0.4	13+					PL
	17	4.63		80	?	?	0.4	13+					PL
NS 5-12	20	5.10		81	89	S	0.4	13+					PL
	22	6.99		79	90		0.2	4.5					PL
	23	7.43		81	86	S	.16+	4+					PL
	5	2.21		6	76	W	0.01	0.23					PL
	7	2.55		9	90		0.4	4.5+					PL
	1	0		95	52	S	0.8	7					PL
	3	.36		78	90		0.8	16+					PL
	4	1.85		81	85	S	0.4	9+					PL
	9	2.96		76	89	S	0.4	8+					PL
	10	3.32		79	90		0.4	8+					PL
	12	3.5		80	85	S	0.4	13+					PL
	13	3.885		76	90		0.4	13+					PL
	14	4.34		81	90		0.4	13+					PL
	16	4.6		81	86	S	0.4	13+					PL
	17	4.63		80	?	?	0.4	13+					PL
	20	5.10		81	89	S	0.4	13+					PL
	22	6.99		79	90		0.2	4.5					PL
	23	7.43		81	86	S	.16+	4+					PL
	5	2.21		6	76	W	0.01	0.23					PL
	7	2.55		9	90		0.4	4.5+					PL

Date-Site	#	Interact (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B Abut	Sed. Char.	Comments	Frac. Char.
8-9-00-54c Sixteen Falls Creek RDJ 53A Fracture Cleavage no offset	15	4.37		5	85	W	.05+	1.5	A(20), (16, 17, 14, 13, 12, 10)		SOS (1)		CL
	18	4.8		12	87	E	.05+	2	A(19)*		SOS (1)	*As a hook, Jagged	PL
	19	4.975		8	87	W	.25+	5+	M(18), (4, 3, 1, 16, 17, 14, 1, 3, 12, 10, 20)		SOS (1)		PL
	21	5.89		335	?	?	.12+	1.6	(20, 16, 14, 13, 12)		SOS (1)		PL
	0	0		0	35.5	E					Shale with dip of 64m ² /km higher than normal 75m/mile	Fracture Cleavage	
	1	.025		0							SOS (0)	SOS (0)	
	2	.07		0							SOS (0)	SOS (0)	
	3	.14		0							SOS (0)	SOS (0)	
	4	.17		0							SOS (0)	SOS (0)	
	5	.2		0							SOS (0)	SOS (0)	
	6	.24		0							SOS (0)	SOS (0)	
	7	.247		0							SOS (0)	SOS (0)	
	8	.27		0							SOS (0)	SOS (0)	
	9	.268		0							SOS (0)	SOS (0)	
	10	.328		5	32	E					SOS (0)	SOS (0)	
	11	.334		5							SOS (0)	SOS (0)	
	12	.344		5							SOS (0)	SOS (0)	
	13	.348		5							SOS (0)	SOS (0)	
	14	.378		5							SOS (0)	SOS (0)	
	15	.43		5							SOS (0)	SOS (0)	
	16	.49		5							SOS (0)	SOS (0)	
	17	.544		5							SOS (0)	SOS (0)	
	18	.59		5	39	E					SOS (0)	SOS (0)	
	19	.67		5							SOS (0)	SOS (0)	
	20	.744		5							SOS (0)	SOS (0)	
	21	.756		5							SOS (0)	SOS (0)	
	22	.799		5							SOS (0)	SOS (0)	
	23	.888		5							SOS (0)	SOS (0)	
	24	.98		5							SOS (0)	SOS (0)	
8-9-00-55 RDJ 19	1	0		79	89	N	1+		M(x-joint)				pl
	2	.25		81	86	N			M(x-joint)				pl
	3	.435		80	90				M(x-joint)				pl
	4	.5		80	90			24+	M(x-joint)				pl
	5	.69		79	87.5	N			M(x-joint)				pl
	6	.72		78	75	N			M(x-joint)				pl
	7	.745		79	74	N			M(x-joint)				pl
	8	.87		79	73.5	N			M(x-joint)				pl
	9	1.075		79	88	N			A(ailer back)				
	10	1.22		79	?	?							
	11	1.335		79	83	N							
	12	1.51		79	90	N							
	13	1.81		79	88	N							
	14	1.94		80	88	N		12+	A(13)				
	16	2.12		80	88	N							
	20	2.71		78	83	N							
	21	2.80		79	87.5	N							
	25	3.4		79	89	N							
	23	3.065		78	88	N							
8-12 NS	B1	.76		8	89	W		6.5	(180's), A(80's curving), A(a late 80)		Black Shale		
	B2	.86		8	88	E		SOS (B1)			SOS (B1)		
	B3	.98		12	86	E		SOS (B1)	(same 80 from B2), Mostly (180's)		SOS (B1)		
	B11	11.65		8	90			SOS (B1)	(80's)		SOS (B1)		
	B12	11.8		9	89	E		SOS (B1)	M(80's)		SOS (B1)	LL offset = 1.2, 1.3, 1.3cm	
	B13	12.4		11	?	?		very long	(180's in one spot), M(80's)		SOS (B1)	entirely twist hackles @ 5°	
	B14	12.43		11	89	E					SOS (B1)	LL offset = 5cm	
	B15	14.99		9	89	E		SOS (B1)			SOS (B1)	LL offset = 1cm	

Date/Site	#	Intersect (m)	True Spacing	Dip	Strike	Dip	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
	B16	15.82		88	9	W			(80's)		SOS (B1)	no offset	
8-9-00-56c Sixteen Falls Creek RDJ 18	1	0		88.5	79	N	21+	2.5+	M(1), A(1)*		Black shale SOS (1)	*Master to a x-joint offline (strike=348°), ** hooks into a lx 1.5m offline to the east striking 70°	PL
	2	.081		85	79	N	.65+	5+	(12)				PL
	3	.098		84	79	N	SOS (2)*	SOS (2)*	NA			*When considered as a composite has the same h/l as (2)	PL
	4	1.16		89	77	N	SOS (2)	SOS (2)	M(12.6)				PL
	5	1.23		89	78	N	.55+	2+	(12)				PL
	6	1.31		86.5	78	N	.55	2.5	(12)A(A4)*			*As a hook	PL
	8	2.025		81	81	N	.75+	5+	(12)				PL
	9	2.075		87	79	N	SOS (6)	SOS (6)	(12)				PL
	10	2.12		90	79	N	.25+	3	M(12)				PL
	11	2.265		85	79	N	.25+	3+	A(10)* (12)				PL
	13	2.95		77	77	N	SOS (12)	SOS (12)	(12)				PL
	14	3.45		78	78	N	SOS (12)	SOS (12)	(12)				PL
	15	3.295		78	78	N	SOS (12)	SOS (12)	(12)				PL
	16	3.525		78	78	N	SOS (12)	SOS (12)	(12)				PL
	17	3.62		78	78	N	SOS (12)	SOS (12)	(12)				PL
	18	3.715		88.5	78	N	SOS (12)	SOS (12)	(12)A(17)				PL
	19	4.095		77	77	N	SOS (12)	SOS (12)	(12)				PL
	20	4.23		78	78	N	SOS (12)	SOS (12)	(12)				PL
	21	4.505		86	78	N	SOS (12)	SOS (12)	(12)				PL
	22	4.67		86	77	N	SOS (12)	SOS (12)	?				PL
	23	4.76		89	78	N	SOS (12)	SOS (12)	NA				PL
	24	4.91		89	77	N	SOS (12)	SOS (12)	NA				PL
	25	5.01		88.5	78	N	SOS (12)	SOS (12)	NA				PL
EW	7	1.70		51	275	N	.59+	1.3	A(12.6)		SOS (1)		CL
	12	2.69		86	10	W	.75+	4+	(12)		SOS (1)		PL
8-9-00-56A Sixteen Falls Creek no # 7	1	0		85	8.5	SE		.79+	M(2.4)			curving	
	5	.33		15	73	SE			A(6.9) (16)				
	2	.09		329	88	E		0.35	A(1*.8)			*Curves to perpendicular	
	3	.165		331	88	W		1.72	A(1*.8)				
	6	.36		332	87	W		1.66	M(9) (18)				
	9	.52		333	90			0.95	M(5), (16), A(6)*			*As a hook	
	13	1.52		337	90			7.0+	FM (80's, 10-12)*			*FM= Fault master	
	8	.476		75	88	S		3.0+	M(5.2) (3.9)				
	10	.87		74	88	N		2.0+	M(6), FA(13)*			*FA= Fault about w/ offset	
	11	1.152		75	88	S		3.0+	M(3), FA(13)*, (16)			*FA= Fault about w/ offset	
	12	1.195		74	90			0.76	FA(13)*			*FA= Fault about w/ offset	
8-17-00-? RDJ 32 Tommy Creek	B1	25.9 (offline diagram p.2-121)		326	?	?	?	9+			Tully L.S.		PL, wiggley
	B5	19.8		345	?	?	?	2.7			Tully L.S.		CL
EW	5	21.3		88	?	?	?	6+			Tully L.S.	RT. Lateral Offset 10 cm	PL, jagged
	B6	17.6		46	?	?	?	7+			Tully L.S.	possible vert. Offset up to the south =2"	CL
NS	B2	25.87		12	?	?	?	8+			Tully L.S.		CL
	B3	23.13		4	?	?	?	3			Tully L.S.		CL
	B7	14.22		4	?	?	?	1			Tully L.S.		PL

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
8-17-00-RDJ34 Tommy Creek SL	A1	0.63		72	79	S	0.16	1+			Black Shale (containing a 2cm limy silt with death assemblage- bag w/ critters)	Fractures are possible glacial unloading fractures as glacier retreated to the north within Lake Seneca (Site close to Lake)	PL
	A4	2.38		62	71	S	36+	1.45+			SOS (A1)	SOS (A1)	PL
	A5	3.1		59	86	S	04+	40+			SOS (A1)	SOS (A1)	CL
	A11	4.72		60	90	S	04+	40+			SOS (A1)	SOS (A1)	CL
	A16	6.24		73	81	S	51+	3+			SOS (A1)	SOS (A1), swings to the N.	PL
	B8	12.63		60	31	NW	6+	6+	A(b7), M(splay b9)		SOS (b1)		PL
	B12	11.05		71	78	S		1.9+	M(b11), M(b10)		SOS (b1)		PL
	B15	9.97		68	88	S		2+			SOS (b1)		PL
	B18	8.47		70	82	S		3.2+	M(b16), M(b17), M(b19)		SOS (b1)		PL
	A2	0.97		50	55	SE	34+	1.2			SOS (A1)	SOS (A1)	PL, jagged
NE 47-50	A14	5.93		47	7	?	20+	45+			SOS (A1)	SOS (A1), eroded	PL, jagged
	B4	14.2		50	76	NW		.5+	A or FA (330 or 340 offline)		SOS (b1)	curves Parallel to B4	PL
	B5	14.4		33	55	SE			A(b4)*		SOS (b1)		CL
	A3	0.97		2	54	W	0.2	0.5			SOS (A1)	SOS (A1)	CL
NS 345-12	A12	5.01		356	84	W	21+	.50+			SOS (A1)	SOS (A1)	PL
	A18	6.58		350	80	?	23+	1+			SOS (A1)	SOS (A1)	CL
	A19	6.72		350	?	?	0.1	0.27			SOS (A1)	SOS (A1)	PL
	A20	7.15		356	?	?	20+	.83+			SOS (A1), zoophycus near A20	SOS (A1)	CL, jagged
	A21	7.22		358	?	?	17+	.65+			SOS (A1)	SOS (A1)	CL
	B1	14.68		346	78	W		.91+	A(b4)?		2cm limy silt	SOS (b1)	CL
	B2	14.56		359	55	E		.5+	I(b4) or A(b4)?		SOS (b1)	SOS (b1)	CL
	B3	14.46		4	40	E		2+	A(b4)		SOS (b1)	SOS (b1)	CL
	B6	13.62		5	63	E		.8+	Curving parallel to a splay of b4		SOS (b1)	SOS (b1)	CL
	B9	12.32		5	82	W		1.3+	I(b7)		SOS (b1)	SOS (b1)	PL
NW	B10	12.15		4	29	E		.64+	A(b12)	TA 2cm limy silt	SOS (b1)	SOS (b1)	PL
	B11	11.62		350	87	W		.75+	A(b12), M(b13)		SOS (b1)	SOS (b1)	Wiggly
	B13	11.03		350	74	E		0.99	I(b12), Curving perp. To b11		SOS (b1)	SOS (b1)	PL
	B19	8.5		12	31	SE		.61+	A(b18)		SOS (b1)	SOS (b1)	Wiggly, PL (locally)
	B20	8.15		348	68	W		1.2			SOS (b1)	SOS (b1)	PL
	B21	7.9		350	83	E		.90+	A(A16)		SOS (b1)	SOS (b1)	ST
	A6	3.59		321	90		36+	0.56			SOS (A1)	SOS (A1)	PL
	A7	4		336	90		33+	0.45			SOS (A1)	SOS (A1)	PL
	A8	4.27		333	88	W	44+	1.2			SOS (A1)	SOS (A1)	PL
	A10	4.48		335	78	W	30+	.66+			SOS (A1)	SOS (A1)	PL
NNW 330-341	A13	5.095		341	76	W	31+	.69+			SOS (A1)	SOS (A1)	CL
	A15	6.18		335	?	?	41+	.77+			SOS (A1)	SOS (A1)	CL
	A17	6.34		339	66	W	0.17	0.4			SOS (A1)	SOS (A1), * offline fracture 20°	PL
	B7	12.88		340	68	W		1.1+	Curving perp to b9, A(splay of b9)		SOS (b1)	SOS (b1)	CL
	B15A	10.12		335				.71+	M(b14)		SOS (b1)	SOS (b1)	PL
	B22	7.695		340	89	E		.65+	A(A18)		SOS (b1)	SOS (b1)	ST
	B23	7.43		330					A(A16)		SOS (b1)	SOS (b1)	
	A20	-0.47	68	7	?								RDJ, CL
	A1	0	76	89	N	.8+	1.53+	M(4)				PL	CL, FI
	A2	0.3	76	7		1.3+	.46+	I(4)				PL	CL, FI
8-16-00 Tommy Creek RDJ 33	A3	0.425	75	87	N	(A2)		M(4)/A(9)*			*abuts but continues	PL	CL, FI

Date/Site	#	Intersect (m)	True Spacing	Strike	Dip Dir	Dip	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
	A5	0.63	74	?	?	3+	1.2+	A(6)*			*As a hook	PL	CL, FI
	A7	1.02	76	?	?	0.45	0.76	1(6)	BA in Shale			PL	CL, FI
	A8	1.14	72	89	S	28+	1.55	(6.9)A(11)				PL	CL, FI
	A16	2.81	79	80	S	1.9+	2.3+	(17.18, B2)				PL	RDJ, CL
	B21	4.58	74	90				0'M(19)					RDJ
	B18	5.27	71	85	N			M(20)		composite			RDJ
	B17	5.955	75	88	N								RDJ
	B15	7.03	76	?				M(N-S		cuts 3cm thick			RDJ
	B14	7.34	75	88	S			M(16)		carbonate w/			RDJ
	B12	7.64	74	90				M(N-S		doesn't cut 3cm			RDJ
	B10	8.38	75	89	S			FM(9), M(1	TA 3cm carbonate w/	cuts 3cm thick	Right lateral offset		RDJ
	B7	9.2	72	88	E			3)L(11)	brachiopods	carbonate w/			RDJ
	B5	9.5	74	90				M(6), M(4)		brachiopods	right lateral offset = .05m		RDJ
								I(4), FM(6)					
NS 348-9													
		From 0.0m											RDJ, CL
	A21	-0.52	2	55	E	1.2+	2+				Composite		RDJ, CL
	A22	-1.37	9	50	E	1+	1+						RDJ, CL
	A6	0.88	354	?	?	.1+	0.55	M(5)A(4)(				CL	CL, FI
	A9	1.25	6	73	E	1.9+	1.57+	I(7.8)M(10				CL	CL, FI
	A11	1.55	354	81	E	.35+	.28+	M(9)A(10*				CL	CL, FI
	A12	2.52	348	77	W	.75+	.75+	NA			*As a hook	PL	CL, FI
	A13	2.55	0	45	E	.21+	.41+	A(14)*			*As a hook	CL	CL, FI
	A14	2.61	5	79	E	.35+	1.5+	M(13)				PL	CL, FI
	A15	2.68	4	68	E	.4+	.53+	NA				PL	CL, FI
	A17	2.88	8	71	E	.65+	1.1+	I(16)				PL	RDJ, CL
	A18	3.05	5	77	E	1.5+	2+	I(16)				PL	RDJ, CL
	A19	3.79	355	?	?	.12+	3+	A(16), M(18)				PL	RDJ, CL
	B20	4.6	357	?				A(18), I(21)					RDJ
	B19	4.88	10	?									RDJ
	B16	5.94	357	?				A(15)					RDJ
	B13	7.5	2	88	W			FA(10), A(			right lateral offset		RDJ
	B11	7.9	3	90			3.5	I(10)			hooks both to N & S		RDJ
	B9	8.66	7.5	?			14+	FA(10)			right lateral offset = 2cm		RDJ
	B8	9.05	4	?			1.5	A(80)					RDJ
	B6	9.45	3	89	E			FA(5), A(7)					RDJ
	B4	10.44	0	86	E		3.5	A(80)					RDJ
	B3	10.67	6	?	?			I(5), A(7)					RDJ
	B2	10.81	5	?	?		9	A(80)					RDJ
								A(80					RDJ
								offline)					RDJ

Date/Site	#	Intersect (m)	True Spacing	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
B Set Spacings (Don't match w/ orientation)													
		8.47		0	?								
		11.6+ (w/o any fractures to the W)		5	?								
A Set Spacings (Don't match w/ orientation)													
8-17-00-7 RDJ 37 Tommy Creek QD	ENE 77	0.23		77	80	N			M/C's				
		0.12		77									
		0.135		77									
		0.18		77									
B Set Spacings (Don't match w/ orientation)													
	NS 5-15	0.05		15	79	W							
		0.1		5	?								
		0.17		10	?								
		0.785		10									
		0.13		10									
		1.6		10									
C Set Spacings (Don't match w/ orientation)													
	NW	0.1		318	54	W			A(80's)			Low angle dip may have slipped along 80's	
D Set (Horizontal) Spacings (Don't match w/ orientation)													
	NNE 20	0.55		20	30				A(80's)	BA		Late stage	
		0.41		20									
		0.14		20									
Black or dark grey shale w/ concretions													
	A1			7	90		12.0+		M				
	A2	4.33		5	90		SOS A1		M				
Left lateral Offset = 02, 028, 06, 07, 085m													
	B1			75	90						SOS A1		
	B2	0.92		75							SOS A1		
	B3	0.99		75							SOS A1		
	B4	0.78		75							SOS A1		
	B6	0.375		75							SOS A1		
	B6	0.399		75							SOS A1		
	B7	0.26		75							SOS A1		
	B8	0.3		75							SOS A1		
	B9	0.39		75							SOS A1		
	B10	1.16		75							SOS A1		
Some FA(A's), Some A(A's)													
	C1			337	88	W					SOS A1	*Left lateral	
	C2	0.54		335	88	W					SOS A1		
	C3	0.66		337	90				FM (bset)*		SOS A1	*"r" lateral Tom	
look at drawing p 2-127 conjugate shear													
8-17-00-RDJ40 Tommy Creek just below Rail rd QD	NS 5-7			7	90		12.0+		M				
				5	90		SOS A1		M				
Some FA(A's), Some A(A's)													
	C1			337	88	W					SOS A1	*Left lateral	
	C2	0.54		335	88	W					SOS A1		
	C3	0.66		337	90				FM (bset)*		SOS A1	*"r" lateral Tom	
8-17-00-RDJ41													
		3		332	90								

Date/Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
		0.42		76									
		covered		76									
		0.8		76									
		0.48		76									
		1.4		76									
		0.31		76									
		0.33		76									
		0.07		76									
		0.48		76									
		0.3		76									
		0.36		76									
		0.25		76									
		0.29		76									
		0.1		76									
		0.17		76									
		0.15		76									
		0.17		76									
		0.31		76									
		0.31		76									
		0.38		76									
		0.05		76									
		0.12		76									
		0.06		76									
*L.L. offset = 0.5m													
8-17-00 RDJ46 Tommy Creek QD	NS	A1		10	90				FM(80's)*				
	NNW 330-337	B1		335	90								
		B2	0.1	337	90								
		B3	0.1	337									
		B4	0.11	337									
		B5	0.08	337									
		B6	0.08	337									
		B7	0.1	337									
		B8	0.17	337									
		C1	1	330	85	W							
			1.13	336	90								
			0.73	338									
			0.45	336									
8-17-00 RDJ 47 Tommy Creek In RDJ's notes	NS	A Set									Carbonate Sh., 42cm thick, phacoidal parting SOS (Fault 1)		
	10-11	Fault 1	N end	10	87	E							
		Fault 2	S end	11	87	W							
		A1	0.32	11							SOS (Fault 1)		
		A2	0.22	11							SOS (Fault 1)		
		A3	0.8	11							SOS (Fault 1)		
		A4	0.51	11							SOS (Fault 1)		
		A5	0.08	11							SOS (Fault 1)		
		A6	0.14	11							SOS (Fault 1)		
		A7	0.83	11							SOS (Fault 1)		
		A8	1.42	11							SOS (Fault 1)		
		A9	1.35	11							SOS (Fault 1)		
		A10	1.08	11							SOS (Fault 1)		
8-17-00 RDJ 47 Tommy Creek In RDJ's notes	NS	B Set									Same bed as A set		
	NNW 333	B1	0.41	333	86	W					SOS (A set)		
		B2	0.52	333							SOS (A set)		
8-17-00 RDJ 47 Tommy Creek In RDJ's notes	NS	C Set									Curving Parallel to (A set)		
	ENE 68	C1	0.77	68	80	S					SOS (A set)		
		C2	0.81	68	76	SE					SOS (A set)		
8-17-00 RDJ 47 Tommy Creek In RDJ's notes	NS	C Set									Curving Parallel to (A set)		
	ENE 68	C1	0.77	68	80	S					SOS (A set)		
		C2	0.81	68	76	SE					SOS (A set)		
8-17-00 RDJ 47 Tommy Creek In RDJ's notes	NS	C Set									Curving Parallel to (A set)		
	ENE 68	C1	0.77	68	80	S					SOS (A set)		
		C2	0.81	68	76	SE					SOS (A set)		

Date-Site	#	Interact (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char. SOS (A set)	Comments	Frac. Char.
	C4	0.45		68									
8-17-00 RDJ 47A Tommy Creek in RDJ's notes	ENE 75												
	A1	A Set			85	S			A(N-S)				
	A2	0.42		75									
	A3	0.05		75									
	A4	0.085		75									
	A5	0.14		75									
	A6	0.41		75									
	A7	0.015		75									
	A8	0.21		75									
	A9	0.055		75									
	A10	0.12		75									
	A11	0.19		75									
	A12	0.39		75									
	A13	0.035		75									
	A14	0.35		75									
	A15	0.055		75									
	A16	0.035		75									
	A17	0.05		75									
	A18	0.175		75									
	A19	0.045		75									
	A20	0.015		75									
	A21	0.24		75									
	A22	0.105		75									
	A23	0.035		75									
	A24	0.12		75									
A25	0.04		75										
A26	0.55		75										
NS 10													
	B1	B Set		10									
	B2	0.32		10					M(80°S)				
	B3	1.8		10									
	B4	0.035		10									
	B5	0.105		10									
B6	0.11		10										
8-17-00-RD147b Tommy Creek in RDJ's notes halfway b/t 47 & 47A	ENE 72												
	1	0.44		72	85	S							
	2	0.28		72									
	3	0.59		72									
	4	0.5		72									
	5	0.39		72									
	6	0.12		72									
	7	0.09		72									
8	0.23		72										
RDJ 48 8-17-00 Tommy Creek QD	ENE 75-77												
	1	SET A		77	83	S							
	2	0.075		77									
	3	0.11		77									
	4	0.26		77									
	5	0.84		77									
	6	0.29		77									
	7	0.15		77									
	8	0.13		77									
	9	0.3		77									
	10	0.475		77									
	11	0.93		77									
	12	0.09		77									
	13	0.53		75	84	S							
	14	0.11		75									
	15	0.34		75									
	16	0.09		75									
	17	0.85		75									
	18	0.65		75									
	19	0.02		75									
20	0.045		75										

Date/Site	#	Intersect (m)	True Spacing	Dip	Dip Dir	H (m)	L (m)	M/A	T/B Abut	Sed. Char.	Comments	Frac. Char.
8-18-00-? RDJ 48 Camp Babcock Hovey QD	21	0.13	75									
	1	SET B	8	90				FM (A SET)*			L.L. offset = 25-5 cm	
		7.1										
	A1	Set A	74	82	N			FA(330's)			L.L. offset 9cm	
	A2	0.15	74	86	N			FA(330's)				
	A3	1.3	74					FA(330's)				
	A4	1.1	74					FA(330's)				
	A5	1.31	74					FA(330's)				
	A6	0.45	74					FA(330's)				
	A7	0.48	73	81	N			FA(330's)				
8-18-00-RDJ50 Camp Babcock Hovey	A8	0.94	73					FA(330's)				
	B1	Set B	350	85	E			FM(80's)				
	B2	0.63	350					FM(80's)				
	B3	1.69	350					FM(80's)				
	B4	.74	350	79	E			FM(80's)				
	A1	0.16	3	?	?	.75+	2.4+	M(A2)		Tully L.S.		CL
	A5	2.92	19	?	?	?	2+	M(A4), A(A6)		Tully L.S.		CL
	A3	1.4	347	?	?	.8+	3.2+	M(A2, A4)		Tully L.S.		CL
	A6	2.96	335	?	?	0.85	3+	M(A5)		Tully L.S.		CL
	A7	4.84	71	77	N	.45+	.45+	NA		Tully L.S.		CL
10-17-00-RDJ 51 Camp Babcock Hovey	A2	0.5	85	?	?	?	1	M(A1), A(A3)		Tully L.S.		CL
	A4	2.43	275	?	?	?	1.47	A(A3, A5)		Tully L.S.		PL
	1		324	75				A(4)				PL-CL
	2	0.15	330	77								PL-CL
	3	0.35	330									PL-CL
	4	0.6	40	89				M(2)				PL-CL
	5	0.08	40									PL-CL
		.6 to next										PL-CL
10-17-00-RDJ 62 QD	1	A set	337	?	?			Intersect and Master to other set		Immediately below Tully L.S.		PL
	2	1.69	335	87	NE					SOS (1)		PL
	3	0.11	336	?	?					SOS (1)		
	4	0.06	332	70	E					SOS (1)		PL
	5	1.24	335	85	NE					SOS (1)		
	5a		1	88	E					SOS (1)		
	6	Best	75	89	S			I(2), A(4)				
	7	0.13	74	86	S			SOS (6)			Right lateral offset	
	8	0.64	77	?				I(2)				
	9	0.22	75	?								
10-17-00-RDJ53 Peanut's QD	10	0.185	72	83.5	S							
	11	0.69	74	68	N						Right lateral offset = .005m	
	12	0.06	75	86	N							
	a1	0	350	77a				A(b1)				c
	a2	0.07	352	85e				A(b6)				c
	a3	0.07	353	89e				A(b6)				c
	a4	0.14	340	89e				A(b6)				c
	a5	0.17	2	89a				M(b2)				p
	a6	0.37	335	75w				A(b3)				cp
	a7	0.75	344	82b				A(b3, b4A)				cp

Date/Well	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
Fake Caywood	a3	0.34		79	90						SOS		P
	a4	0.14		80	87n						SOS		P
	a5	0.57		79.5	90						SOS		P
	a6	0.54		81	86s						SOS		P
	a7	0.62		80	84n						SOS		P
	a8	0.43		275	90						SOS		P
	a9	0.45		275							SOS		P
	a10	0.33		285							SOS		P
	a12	0.44		75	85n						SOS		P
	a12a	0.22		76	85n						SOS		P
	a13	0.04		75	90						SOS		P
	a14	0.56		76	90						SOS		P
	B1			338			6.0+	4.0+			Shale		
	B2	2.9		335			SOS (B1)	SOS (B1)			Shale		
NNW 334-338	B3	1		334			SOS (B1)	SOS (B1)			Shale		
	B4	1.43		335			SOS (B1)	SOS (B1)			Shale		
	B5	4.27		335			SOS (B1)	SOS (B1)			Shale		
	B8	1.88		335			SOS (B1)	SOS (B1)			Shale		
	B6			0			SOS (B1)	SOS (B1)	A(A's)		Shale		
	B7	0.67		5			SOS (B1)	SOS (B1)	A(A's)		Shale		
NS 352-5	a11			352	87w						SOS		P
	a0	0		75	85s	2	0.62	A(a1)			11ru all sh		P
7-18-00-22 Fake Caywood 2	a3	1.76		75	85n	4+	2.5+	A(a2)			SOS		P
	a4	2.87		75	89n	0.23	0.79	na			SOS		P
	a5	2.91		75	90	1	1.75	330 e of line			SOS		P
	a7	3.76		72.5	89n	0.56	0.53	M(a5)					P
	a8	3.89		74	90	5+	0.1						P
	a9	3.98		72	89s	5+	0.1	na					P
	a10	4.12		71	90	5+	0.15	na					P
	a11	4.18		72	90	5+	0.15	na					P
	a12	4.55		75	86s	4.5+	0.25	na					P
	a13	5.5		75	89s	4.5+	0.65						P
	a15	6.38		76	90	5+	2.6+	M(b17)					P
	a16	3.2		74	90	5+	2.5+	can't tell					P
	B2	10.9		70	85	S	5	1	NA		SOSB1		PL
	B5	9.73		70	90		5+	2+	M(B6,B4),(B1)		SOSB4		PL
	B6	9.68		75	90		30+	35+	A(B5)		SOSB5	Hook	PL
	B8	9.54		65	87	S	23+	50+	NA		SOSB7		PL
	B9	9.96		69	87	S	0.09	0.36	A(B7)		SOSB8	Hook	PL
	B13	7.49		79	90		32+	0.18	A(B10,B11)		SOSB12		PL
NNW 330-338	B14	7.25		74	89	S	5	1.5	(B11,B12,B10)		SOSB13		PL
	B15	6.82		77	86	S	5	1.5	(B12,B13,B14)		SOSB14		PL
	B16	6.74		78	85	S	5	1.5	A(B10,A11,A12)		SOSB15		PL
	B17	6.7		75	86	S	5	0.2	A(B10)		SOSB16		PL
	a1	0.55		332	89e	1.5	1.1	M(a0)			SOS		P
NNW 330-338	a6	5.1		335	89e	0.77	0.77						P
	a14	6.06		333	88w	1.5	3+	M to last 6					P
	B1	11.5		330	88	W	1.75+	2+	(B5)		Shale		PL
	B3	10.4		338	86	W	41+	0.87	M(A/B4)		SOSB2		PL
	B7	9.75		331	90		45+	54+	M(B9)		SOSB6		PL
	B10	9.23		331	90		5+	2+	M(A15)		SOSB9		PL
	B11	9.1		335	90		SOS B10	SOS B10	(A15)		SOSB10		PL
	a1	0.55		332	89e	1.5	1.1	M(a0)			SOS		P
	a6	5.1		335	89e	0.77	0.77						P
	a14	6.06		333	88w	1.5	3+	M to last 6					P

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
	B12	8.75		330	90		0.8	.92+	A(15)		SOSB11		PL
NNE	a2	2.1		35	89e	1	1.21+	M(a3)			sos		p
NS	B4	10.1		13	75	E	.17+	0.45	NA(B3),A(B5)		SOSB3		PL
7-6-00-2 Excelior Glen	a1	1.1		16	72	W	2.0+	10.0+	NA		Thick sands <= .78m		pl-cl
	a2	3.55		15	75	W	2.0+	7.0+	NA	TA SS	SOS (a1)		pl
	a3	5		6	87	W	0.04	4.5	NA		Thick sands	Junky (Poorly Developed), questionably an erosional feature	cl
Junky	a5	4.59		15	73	W	0.04	0.22	NA		Sand .04m thick	Junky, questionably an erosional feature	pl
	0	-0.09		10	7				NA			Only for spacing from the end of scanline #2	
EW 84-99	a4	5.29		84	80	S	2.25+	9	I (b7), F+K283M(B8) *	TA, 2m sand	SOS (a1)	*But offset .02cm	pl
	b2	21.67		89	84.5, 89e		1	6.2+	M(b3)		is	6cm sl	p
	b4	19.81		86	83e, 85n		1.06+	9.5	M(b6)				p
NE	b1	24.25		49	86	E	.11+	1.5+	na		is	4cm	p
WNW	b3	48 see		304	80n		0.18	1.44	a (b2)				c
ENE	b5	17.15		70	82nw		.10+	1.11	na		sl	7cm	cl-pl
NNW 330-339	b6	19.62		330	86e		0.07	18	a b4				p
	b7	15.18		339	90		0.4	10+	A(b4), I(a4)				p
	b8	9.79		338	86e		0.76	19+	A(a4) I(b4)				p
7-6-00-3 Hector Falls	a1	0.04		31	90		.37+	1.47	I(A2)		Carbonate rich sand, <= 27m		cl
NW	a2	0.55		335	90		1.2	4	I(A1, A3)		SOS (1)	Circlewackles see diagram curves into A2 but not Abutt	pl
333-338	a4	0.86		338	90		3.0+	4.26	A(A3)		SOS (1)		pl-cl
	a5	1.1		335	86	W	0.53	1.91	A(A3)	TA sand	SOS (1)		pl
	a6	1.45		334	90		0.44	16.6	M(A3)		SOS (1)		pl
	a7	1.6		335	89	E	.86+	2.9+	A(A3)		SOS (1)	mutually abuts A3	pl
	b1	10.59		333	85e		3.8	8+			cs	9cm	p
	b9	1.635		336	87e		1.28	5.5	A(3), I(b6)	t-15cm lim			p
NS 354-10	a3	0.8		10	88	W	1.57	5.4	I(A2), M(A5), I(A6, A7)		SOS (1)	Composite fract. That w/ several small jumps crosses the entire creek, 15m	pl
	b2	10.75		0	86e		0.34	.3+	na				p
	b3	10.8		5	90		0.34	.18+	na				p
	b4	10.2		356	85e		0.07	2.9	A(b6)				p
	b5	8.79		356			.03+	6.2	A(b6)				p
	b7	8.81		354	89w		0.26	4.67	I(b6)			b- shale	p-c
	b8	3.62		354.5	88e		0.06	1.83	A(b6)				c-b6
ENE	b6	6.85		67	86nw		1.65	9+	M(b4, b5)	A a7	limey ss		p
7-7-00-4 Seneca Lake Inlet	1a	0		338	86e		1	2+	M?		ss	13cm	p
332-338	2a	0.2		332	89e		0.38	.43+	M?		ss	13cm	p
	6a	1.31		337	84e		3	2+			resl. Sh		p
	7a	1.64		335	89w, 85e		0.11	0.81			ss	2, 10cm	p
	a19	5.42		335			4	.87+			sh		cl
	a20	5.19		337	88e		5	.56+	M		sh		cl
	a21	6		333	72w		8+	.59+			sh		
NS 342-4	3a	0.44		348	76e		0.15	.47+			ss	15cm	p
	4a	0.69		348	82e		0.31	.31+	na		ss	15cm	p

Date/Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
ENE	5a	0.88		4	82W		.05+	.71+			ss	15cm	p
	8a	2.09		345.34			0.1	0.87		t-sh	ss	13cm	p
	9a	2.29		350	81e		0.1	1+			ss	13cm	p
	10a	2.56		350	79e		0.13	0.36	M x-int.		ss	13cm	p
	a11	2.68		347	72e		0.13	30+	M x-int.		ss	13cm	p
	a12	3.11		352	85w		20	1.5			ss	21cm	p
	a13	3.68		351	72w		1.41	1.5+			ss	20cm	p
	a14	4.68		342	86w		0.22	0.25			ss	20cm	p
	a15	5.27		342	86w						ss	20cm	p
	a16	4.95		345	72e		.12+	.22+			sh	12cm	p
	a17	5.11		346	82w		0.36	1+	M(a18)		ss		p
	b1	0		356	80	E	0.07	1.51+	NA		SS		cl
	b2	0.4		355	55	W	0.08	1.85+	NA		SOS (b1), next sand up		cl
	b3	1.34		342	82	E	0.07	1.42+	NA		SS		cl
	a18	c-note		76	80n		.17+	1+	A(a17)		ss	17cm	
EW 76-86	c1	0		81	81	S	0.23	5+	NA		Sandy shale, 23m thick, good marker, above massive ss. 72m thick, below bedded SS 42+m thick	The entire c set is contained within a .23m sandy shale unit and at 6 fractures	pl
	c2	1.2		80	83	S	0.23	.66+	NA		SOS (c1)		pl
	c3	1.89		82	80	S	0.23	.66+	NA		SOS (c1)	about the sands above and below.	pl
	c4	2.68		86	84	S	0.23	.54+	NA		SOS (c1)		pl
	c5	3.16		78	84	S	0.23	.58+	NA		SOS (c1)		cl
	c6	3.9		76	80	S	0.23	.60+	NA		SOS (c1)		cl
EW 79-86	d1	0.68		86	84	S	0.31	.02+	NA		Dies into .1m sand at top, TA .06m sand		pl
	d2	0.96		83	80	S	0.31	.25+	NA		TA .06m sand, Bot. Dies out half way through a .1 m sand (SOS (d1)) dies to a .06m sand at top	* TA sand .03 m thick sand then jumps .03m to a sand and continues .16m in sh until it reaches .08m sand which it TA	
	d3	1.19		84	84	S	0.31	.21+	NA		SOS (d3)		
	d4	1.53		79	89	S	0.31	.40+	NA		TA .06m sand, Bot. Dies out in sand		
	d5	2.09		84	79	S	0.31	.30+	NA			* can be seen in shale above with no offset	
NNW 327-339 7-7-00-5 N.J. People's House	a1	3.16		333	87	E	C8.5	C28	NA	BA sh	Thick Sands*, .25m-.41m Thick Shale sands b/t sands of (a1) and waterfall		pl
	a2	3.24		331	86	E	.30+	3+	NA		SOS (a1)		pl
	a3	3.36		331		E	.93+	18+	NA		SOS (a1)		pl
	a4	14.32		332	84	E		19.5+	M(A4)		SOS (a1)		pl
	a5	14.84		331	87	E		9+	NA			b/t a5&a6 cross its	pl
	a6	14.92		330	89	E	.04-.5+	19.5+	A(A4)				pl
	a7	15.21		328	89	E	.04-.5+	19.5+	NA				pl
	a7a	15.26		327		E	.04-.5+	19.5+	NA				pl
	a8	13.35		339	79	W	0.5	1.5+	A(50*)	BA in sh	SS above 2nd salvage	Composite height 6m	pl
	a9	15.94		327	90	W	0.5	19.5+	NA	Makes it across all ss and sh			pl
	a10	15.99		333	83	W	2.5	19.5+	NA				pl
	a12	28.8		338	19	W	1+	6+	NA		In SS above salvage SS		cl irregular
	a13	29		333	19	W	0.13	1	NA		SS above salvage SS		pl
	a14	28.3		333	25	W	0.21	.25+	NA				pl
	a15	28.1		329	27	W	0.21	.43+	NA				pl
NNW 334-349	b2	38.25		340	73e		1.25+	10+	na	b-st	sh	20cm	p
	b3	36.85		340	81e		1.40+	0.15	M		sh,ss		

Date Site	#	Intersect (m)	True Spacing	Strike	Dip	Dir	H (m)	L (m)	N/A	T/B abut	Sed. Char.	Comments	Frac. Char.
7-11-00-6 Warner rd. 1 QD	b4	35.1		335	90		1.75+	12+	M		sh, sl		p
	b5	34.32		334	85e		1+	14+	M			entirely twist	p
	b6	32.35		349	90		2.86+	15				entirely twist	p
	b7	31.89		348	90		0.85				ss	18cm	d
	b8	30.23		337	90		0.51	10+					d
	c3	1.95		333	89e		0.18	0.73	M(c3), A(c2)				p
	c5			332	84w		0.55	1.06	M(c2), I(b7)				p/d
	d3			337	67w		.73+	1.70+					d
	a11	25.87		12			.16+	1.5+	NA				d
	a11	25.87		12			.16+	1.5+	NA				d
7-11-00-7 Warner rd 2	a4a	off line		70	86	S	5	2.5+	A(A4)	TA, 17m SS, BA	sh inbetween 2 thick sands.	off scan line, in side well, M=Mutually	pl
	a16	27.05		72	85	S	0.45	1.22+	M(A)(B8)		Shale		pl
	a17	21		71	89	S	0.42	1.8	NA		Shale restricted		pl
	c1	0.13		74	90		0.1	0.89	A(b8)				p
	c2	1.07		75	79s		0.03	1.3			ss		p
	c4	30.5		74	84n		0.13	1	A(b9), M(c2)		ss		p
	d1	c-note		76	82n		0.51	1	na	t-sh, b-ss	ss		p
	d2			72	75s		0.44	0.82		t-sh, b-ss	ss, sh		p
7-11-00-6 Warner rd. 1 QD	1	0.38		338	86	E	C1.7		NA		thick sands, .15m thick		
	2	0.2		334.5	86	E	0.15	0.6	M(3)		IS w/ sands <= 05-07		
	3	0.26		76	80	N	0.15	0.45	A(2)		SOS (1)		
	a1	0.62		350	90		7+	1.22	na				p
	a2	0.42		351	80e		6+	22+	na		ss, a1		p
	a3	1.41		352	78w		10+	2.20+	na				p
	a5	1.85		354	87w		16	2+	M				p
	a7	2.19		350	64w		4+	35+	na				cl
	a8	2.59		351	72w		6	.60+	A				cl
	a9	2.9		350	68w		15+	1.20+	na				p
Site 7 7-11-00-7 Warner rd 2	a10	3.95		354	64w		.49+	3.85+	M(a11)		st	10cm	pl
	a13	4.74		351	60w		0.36	2.8+	Intersect		All sands *		p
	b9	5.34		345	85	E	1.1+	4.8+	M(B10)		st	10cm	pl
	a14	6.88		346	89e		0.01	2+	M		st	10cm	p/d
	a15			345	90		0.01	0.34	A(14)		st	10cm	cl
	a16	6.97		345	90		.01+	1.05+			st	10cm	cl
	a17	7.09		338	90		.01+				st	10cm	cl
	a18	7.45		345	90		0+	2	na		st	10cm	cl
	a19	7.71		340	85e		0.09	0.78			ss, a14-19		cl
	a20	8.68		349	75e		.12+	1.5					p
EW 83-275	a22	9.73		345	75e		17+	3+	M(a21)		SOS (b7)		p
	b8	10.74		353	79		.08+	1.05	NA		Sandy sh		pl
	b7	11.42		351	89	W	0.1	1.1	NA		SOS (b1)		pl
	b6	14.61		351	89	W	0.1	1.1	M("80")		SOS (b1)		cl
	b5	17.37		339	90		.13+	3.65+	M(C1)		SOS (b1)		pl
	b4	21.65		0	?				M(B3)		SOS (b1)	Composite L=1.5m+ H=.15m+	pl
	b3	21.68		335	87	W	.07+	0.46	A(B4)		SOS (b1)	very small	pl
	b2	25.25		338	90		1.0+	4.6+	NA		SOS (b1)	poss. dkwe twist hackles	p/d
	b1	26.5		340	87	W	0.4	3.75	NA	TA SS	SS <=.1m		pl
	a4			275	90		1+	.38+	A(a3)		t-sh		p
EW 83-275	a6			272	77s		5	0.43	A(a5)				p
	a11			84	85s		3+	0.73	A(a10)				cl
	a12			84	90		8+	0.71					cl
	a21	9		84	85e		0.02	1.25			sh	2cm	p
	c1	offline @ 17.37		275	74	N	0.09	2.5	A(B5)		SOS (b1)		cl
EW 83-275													
	b10	4.56		83	89	N	.06+	0.4	A(B9)		New sand		pl

Date/Site	#	Intersect (m)	True Spacing	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
	B11	3.84		84	80	S	0.15	2	A(B9)		Basal 27 m sands		pl
She15C													
7-15-00-15													
Sawmill Creek													
Hector													
East End of RR tunnel													
Q&D													
Spacing													
	A0			88	78	S	<= A5	<= A6	NA	BA Shale	X-bedded sand <= .06m max	A abuts B, Babuts C	
	A1	0.3		86	73	S	<= A5	<= A6	NA	SOS (A0)	SOS (A0)		
	A2	0.6		83	70	S	<= A5	<= A6	NA	SOS (A0)	SOS (A0)		
	A3	0.322		82.5	59	S	<= A5	<= A6	NA	SOS (A0)	SOS (A0)		
	A4	0.265		75	75	S	<= A5	<= A6	Hopkins into 335°	SOS (A0)	SOS (A0)	hooking	
	A5	0.075		90	83	S	0.06	1.12		SOS (A0)	SOS (A0)	hooking	
	A6	0.58		80	79	S	<= A5	<= A6		SOS (A0)	SOS (A0)	hooking	
	A7	0.65		75	76	NW	.15+	3.0+	Hookhs into 335°	SOS (A0)	shale	hooking	
NNW													
329-336													
	B1			329	85	SW	1.11+	15.0+			0.10 m Sand	hooking	
	B2	2.14		336	80	NE			A (B3), M(75°)		SOS (B1)		
	B3	0.27*		335	81	NE			M(B2), A(C1)		SOS (B1)	*At least 2 m until next fracture	
ENE													
64-68													
	C1			68	80				M(B3)				
	C2	1.4		67	88	N	.37+	2.0+			Sand and Shale		
	C3	8.1		64	Variable						SOS (C1)		
NS													
351-5													
	D1			351	?				M(90°)				CL
	D2			353	86	W			M(90°)				CL
	D3			5	?				M(90°)				CL
7-14-00-15K													
EW													
75-281													
Sawmill													
"Q&D"													
	a0			88	68s						restr. 4cm	sh	
	a1	0.29		82	62s								
	a2	0.23		90	65s								
	a3	0.18		90	60s								
	a4	0.2		79	na								
	a5	0.35		82	76s								
	a6	0.2		79	90								
	a7	0.27		81	77s								
	a8	0.26		88	84s								
	a9	0.26		87	85n								
	a10	0.43		81	90								
	a11	0.43		78	82s								
	a12	0.4		75	83s								
	a13	0.43		85	82n								
	a14	0.28		83.5	69s								
	a15	0.19		89	76s								
	a16	0.31		89	73s								
	a17	0.21		89	75s								
	c1	0		281	na								
	c2	0.12		89	81s								
	c3	0.11		80	89s								
	c4	0.11		82	76n								
	c5	0.22		84	90								
	c6	0.15		88	90								
	c7	0.12		90	81n								
	c8	0.12		90	80s								
	c9	0.13		85	82s								
	c10	0.13		65	na								
	c11	0.51		75	na								
	c12	0.14		85	na								
	c13	0.12		82	na								

Date-Site	#	Intersect (m)	Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
Site 16 7-15-00-16 Sawmill Creek West end of RR tunnel	a1	0.39		334	90		0.26	2.5+	M(a17-90)				p
	a2	0.71		330	80w		0.32	1.23	A(a5)			13cm ss	
	a3	1.27		334	84w		0.32	1.23	A(a5)				
	a6	10.95		335	na		0.01	1.6+	M(a9)				hook
	a11	13.33		340	na		na	2.3					c
	a17	21.7		344	74e		0.12		M(a13-16)				
	a4	1.38		3	na		0.32	6.5+	SOS			carbonate	
	a5	1.54		5	na		0.32	6.5+					
	a6	2.25		0	85e		0.32	6.5+	SOS				
	a7	7.53		2	90		0.2+	6.5+	M(330's)				c
NS 351-5	a7	9.98		5	na								
	10	12.73		355	na		na	1.6+					
	a12	14.85		5	na		na	3.4					c
	a19	24.35		355	84w		0.05+	0.45	A(a18,20)			CTR CLWS Twists	PL-CL
	B1	39.8		5	?		2.5+	C11+	NA		= 0.04 m	Cross Jt.*	CL
	B3	35.59		351	45	W	0.2	1.15	A(a18,20)*		in upper IS		CL
	B12	26.57		356	?		0.11	3.9+	A(B13)				c
	a9	11.18		65	na		na	1.9					p
	a13	17.62		71	88s		0.44+	5.9	A(a17)		I-ss		p
	a14	18.8		70	88n		SOS	SOS	A(a17)				p
EW 65-89	a15	20.17		71	88n		SOS	SOS	A(a17)				p
	a16	20.9		70	88ne		0.4+	3.8+					c,p
	a18	23.93		73	90		0.92		M(a17)				c,p
	a20	25.3		89	72s		0.09+	6.5	A(a18,21)				
	a21	25.5		87	76s		0.13+	2.2+	A(a18)				PL
	B2	B1 0.69 Offline		89	86	S	0.3+	5+	NA		TA Sand		PL
	B4	34.4		89	87	S	0.42	3	NA		Dies into Sand		PL
	B5	34.3		72	85	S	0.48+	7+	M(B3)				CL in sand
	B6	36.45		70	90		0.8+	7.5	M(B3)		IS and Sand		PL
	B7	32.7		70	?		0.6	6+	M(351° crs I)		TA in IS		PL
7-17-00-17 Sam's Property Glen Eldridge Hollow Carpenter Rd. Q&D, N-S FID GPS = N42°25'19.3,	B8	offline @ 32.37		70	?		0.7+	6+	NA		Cuts through upper sand	CTR CLWS Twists in upper sand	PL
	B9	31.29		70	89	S	0.2	3+	SOS (B5)				PL
	B10	31.12		72	90		0.55	8.5+	NA		TA upper sand		PL
	B11	28.81		68	?		0.16+	5+	M(A20)		Dies in upper IS		CL
	B13	26.41		78	?		0.11+	2.78	M(B12)				CL
	A1			352	82	W	10+	12+			Sandy Shale		
	A2	3.87		326.7	88	E	3+	2.4+	A(A3)			CLWS twists	
	A3	0.41		345	87	E	2.5+	12+	M(A2)				
	A4	0.04		349	89	W	10+	2+					
	A10	2.84		335	80	E	4+	1.7	A(A11)				PL
Site 18 7-17-00-18 Glen Eldridge 2 SL -N-S FID	A2	@A1		61	90		0.18+	0.63	A(A1)		IS		PL
	A1	0.61		333	82	E	4+	5+	M(A2)		sand 31m	Small	PL
	A3	0.79		332	89	E	2.3+	2.5+	A(A1)		Cuts marker sand	Vertical Hook	PL
	A4	0.99		331	90		0.3910+	0.57	NA		IS	Hook	PL
	A5	1.32		333	87	NE	0.39	1.2+	A(335?)		Cuts entire section		where
	A6	1.87		332	89	NE	0.02+	0.7+	NA		IS		PL
	A7	2.57		334	90		0.44	1	NA		IS		PL
	A8	2.33		334	90		2.5	5+	NA		Cuts marker sand		PL
	A9	2.78		330	85	SW	0.28	0.96	A(A11)		IS		PL
	A10	2.84		335	80	E	4+	1.7	A(A11)		IS		PL

Date/Site	#	Intersect (m)	True Spacing	Strike	Dip	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
	A11	2.96		335	90	10+	5+	M(A9,A10)		SOS (A12)		PL
NS	A12	3.56		355	81	E	SOS (A11)	(A11)	NA	SOS (A11)		PL
07-24-00-32 Sawmill SL	a1	0.35		275	na		0.24	1.9				c
	a2	1.42		86	na		0.24	1.83		24cm ss		c
	a3	2.83		277	na		0.24	0.62				c
	a4	3.44		80	90		0.24	1.2				c
	a8	7.74		89	na		0.24	0.89				c
	a9	8.69		84	90		0.24	0.79				c
	a11	10.13		78	90		0.24	0.55				c
	a12	10.48		86	90		0.24	1.3				c
	a13	11.87		80	90		0.24	3.5				c
	a14	14.54		80	90		0.24	0.81				c
	a15	15.79		86	90		0.24	0.8				c
	a17	17.56		275	90		0.24	0.94				c
	a18	22.53		275	90		0.24	na				c
NNW 325-334	a5	4		329	na		0.24	0.4				c
	a10	8.68		332	90		0.24	0.24				c
	a16	16.4		334	na		0.24	0.9				c
NE 54-64	a6	6.3		54	na		0.24	0.52				c
	a7	6.83		64	na		0.24	0.58				c
Site 33 7-24-00-33 Logan Rd	A1	0.39		75	?	?	0.6+	5		IS sands <= .02 m		CL
	A3	1.78		74	?	?	14+	1.0+		BA .02m sand		CL
	A6	3.7		85	?	?	0.5+	2.5		SOS(A1)		CL
	A8	6.5		78	?	?	0.4+	2.3		SOS(A1)		CL
	A12	10.65		80	?	?	?	2.17		SOS(A1)		CL
	A15	15.15		75	?	?	0.4+	1.4+		SOS(A1)		CL
NNW 325-335	A4	2.15		333	89	W	89+	6.0+		SOS(A1)		PL
	A5	2.26		335	90		12+	2.0+		SOS(A1)		PL
	A7	5.34		331	86	W	44+	2.5+		SOS(A1)		PL
	A9	8.09		327	89	W	1.5+	3.5+		SOS(A1)		PL
	A10	8.3		334	85	W	70+	2.5+		SOS(A1)		PL
	A11	10.5		325	90		1.3+	4.0+		SOS(A1)		PL
	A13	13.17		331	90		1.3+	8.5+		SOS(A1)		PL
	A14	13.85		330	86	W	07+	2.0+		SOS(A1)		PL
	A16	15.73		331	89	W	35+	8.5+		SOS(A1)		PL
	A2	Offline at 1.78		311	82	E	?	0.45		SOS(A1)		CL
RDJ 71 10-18-00 OD	Set A											
	1	1.3		347	88	E				M(Set B)		
	Set B											
ENE 70-77	2	24.3,1.3		77	82	N				A(Set A)		
	3	0.31		70	82	N						
10-19-00 rd/73a	A1			334								
	A2	2.55		333								
	A3	0.08		328								
	A4	0.08		328								
NS	A5			352								

Date/Site	#	True			Dip Dir	H (m)	L (m)	M/A	T/B about	Sed. Char.	Comments	Frac. Char.
		Intersect (m)	Spacing	Strike								
352-3	A6	0.46		3								
10-19-00 RDJ 73b Habers' QD	a1			36						friable sh		
	a2	1		30						friable sh		
	a3	0.45		32						friable sh		
	a4	0.5		32						friable sh		
	b1			275						30cm red sh		
	b2	0.51		274						30cm red sh		
	b3	0.2		82						30cm red sh		
	b4	0.16		82						30cm red sh		
	b5	0.08		276						30cm red sh		
	b6	0.1		81						30cm red sh		
	b7	0.2		80						30cm red sh		
	b8	0.91		78						30cm red sh		
	c1			273						12cm ss	ss only	
	c2	1.6		275						12cm ss	ss only	
	c3	28		285						12cm ss	ss only	
10-19-00-RDJ73 Habers' drive	a1	0		342							a's all beds	
	a2	0.19		342							ss	
	a3	0.26		340							ss	
	a4	0.6		340							ss	
	a5	0.25		340							ss	
	a6	0.11		338							ss	
	b1	0.1		336					only	b's: chatter	frac. sh	
	b2	0.04		335							conf. to sh	
	b3	0.04		334							conf. to sh	
	b3a	0.05		334							conf. to sh	
	b4	0.04		332							conf. to sh	
	b5	0.09		335							conf. to sh	
	a7	0.31*		338							cuts all	
	a8	0.14		341							cuts all	
	a9	0.12		341							cuts all	
	a10	0.14		341							cuts all	
	a11	0.22		340							cuts all	
	a12	0.66		340							cuts all	
	b6	0		334							sh only	
	b7	0.03		334							sh only	
	b8	0.05		336							sh only	
	b9	0.02		336							sh only	
10-19-00-RDJ74b top, Nipantuk	a1	0		332								
	a2	0.11		334								
	a3	0.22		335								
	a4	0.6		338								
	a5	0.16		332								
	a6	0.76		332								
EW 85,86	b1	0		86								
	b2	2.1		85								
NS 4-13	c1	0		4								
	c2	0.2		9								
	c3	0.08		13								

Date-Site	#	Intersect (m)	True Spacing	Strike	Dip	Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Frac. Char.
10-19-00-rd/74 Nipantuk Cr.	a1	0		335					(b's below)				
	a2	0.42		336									
	a3	0.21		334									
	a4	0.49		324									
	a5	0.34		329									
	a6	0.76		330									
	a7	1.1		335									
	a8	1.11		335									
	a9	1		339									
	a10	1.25		342									
	a11	1.25		339					M(b2)				
NS	a12	1.17		350									
	b1	0		78									
	b2	3		50									
NE-ENE 50-78	b3	1.85		74									
	a1	0		1					M(b2)				
	a3	7		0									
NS 0-1	a4	10.6		0									
	a2	20-54		25									
	b1	0		89									
NNE	c1	0		327									
	c2	0.4		327									
	c3	0.6		326									
EW	a0	3.70e.a1		335									
	a1	0		331									
	a2	1.2		334									
NNW 326-327	a3	1.04		335									
	a4	0.8		336									
	a5	1		339									
NNW 331-339	a6	1.8		335									
	b1	0		9									
	b2	0.6		7									
NS 2-9	b3	0.46		2									
	b4	1.8		6									
	b5	1.74		2									
NS 2-9	b6	1		6									
	b7	1.3		2									
Site 19A 7-17-00-19 Bullhorn Creek-2 SL	1	0		331	90		1.1+	7.4+	NA		IS		PL
	2	0.49		328	90		53+	SOS(1)	NA		IS		PL
	3	0.73		331	90		87+	3.5+	M(5)		IS		PL
	4	1.7		332	76	W	.71+	13+	M(5)		IS		PL
	6	2.08		334	90		1.75+	13+	MA(6)		C and 3		PL
	8	3.15		335	87	W	1.5+	3.5+	M(7)		C, 3 and Bottom of B		PL
	9	4.51		329	89	E	3.5+	7.0+	NA		3, B, 2, A, 1 and Top of C		PL
	10	4.62		329	87	W	2.5+	7.0+	NA	TA 3	C		PL
	11	5.72		335	90		6.0+	13+	NA		Entire section		PL
	12	5.9		330	84	E	0.06	20+	NA	TAB	B		PL

Date/Site	#	Intersect (m)	True Spacing	Strike	Dip	Dip Dir	H (m)	L (m)	M/A	T/B abut	Sed. Char.	Comments	Fract. Char.
ENE	5	1.7		73	75	S	0.76	0.93	A(3,4)		Sand 2	Hook	PL
	7	2.43		15	80	NW	0.11	1.21	MA(7),A(8)		Only 3	May be a cross joint b/t 6&8	PL
NNW 328-336 Buckhorn	b1	17.28		328	90		38+	5+	M(70 offline)		thru mss		p
	b2	15.47		330	90		25+	5.25+	lb(3)		thru mss		p
	b4	14.08		336	86e		0.11	6+	na		only mss		p
	b5	13.82		332	84w		1.5	3	na		dis in ss		p
	b6	13.55		334	82w		0.6	8+	na		thru mss		p
	b7	13.4		334	86w		2.5+	2.5+	na		thru mss		p
	b8	10.36		336	86e		1+	5	na		only wr sh		p
	b9	10.1		330	86w		1	4.5+	na		only wr sh		p
	b10	9.42		335	89w		0.6	3+	lb(11)		only wr sh		p
	b13	7.19		333	86w		0.33	3.5	M(b11)		in mss sh		p
	b14	7		330	90		2+	7+			thru all		p
	b16	6.27		336	90		20+	5+	M(b15) lb(17)		dis in sh		p
	b18	5.19		334	88w		2.5+	5.5+	lb(17)		in wr mss		p
	b19	3.88		330	90		1.3	5+	na		in wr mss		p
NNE	b11	8.54		35	85s		0.25	2	lb(11),b(12)		only wr sh		p
	b15	6.56		70	86n		0.13	0.64			in wr mss		p
NS 4-11	b3	14.63		6	89w		0.03	4	lb(2)		in mss		p
	b12	8.1		11	90		2	5+	lb(11)		thru all		p
	b17	6.1		4	90		1.5+	4+	lb(16)		in wr mss		p
	b20	0.5		6	82w		2	4+	na		ext. gr. Sh		p

Appendix C

Fracture Frequency

<u>Quadrangle</u>	<u>Page within Appendix C</u>
Burdett	1
Ovid	10
Dundee	39
Lodi	46
Reading Center	63

BURDETT

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
7-5-00-1,7-6-00-1								
Along Rte 414 SL Orient=	347.00	167.00						
NS	0	7						
7-11	51.2	11	51.20	191	191.00	24.00	0.42	20.825
								20.825
								0.048
NNW	3.5	335		155		12.00	0.21	
329-346	20.9	331	17.40	151	153.00	16.00	0.28	4.796
	35	332	14.10	152	151.50	15.00	0.26	3.649
	43.2	335	8.20	155	153.50	12.00	0.21	1.705
	45.35	334	2.15	154	154.50	13.00	0.23	0.484
	48.1	340	2.75	160	157.00	7.00	0.12	0.335
	50.5	336.5	2.40	157	156.25	10.50	0.18	0.437
	56.97	333	6.47	153	154.75	14.00	0.24	1.565
	59.9	336	2.93	156	154.50	11.00	0.19	0.559
	60.45	334	0.55	154	155.00	13.00	0.23	0.124
	63.25	334	2.80	154	154.00	13.00	0.23	0.630
	64.39	331	1.14	151	152.50	16.00	0.28	0.314
	67.9	335	3.51	155	153.00	12.00	0.21	0.730
	70	330	2.10	150	152.50	17.00	0.30	0.614
	72.44	328	2.44	148	149.00	19.00	0.33	0.794
	89.3	329.5	16.86	150	148.75	17.50	0.31	5.070
	98.25	333	8.95	153	151.25	14.00	0.24	2.165
	98.25	331	0.00	151	152.00	16.00	0.28	0.000
	98.25	329	0.00	149	150.00	18.00	0.31	0.000
	110	346	11.75	166	157.50	1.00	0.02	0.205
								1.272
								1.568
								0.786
ENE	24.64	77.5		258				
65-79	25.89	76	1.25	256	256.75	89.00	1.55	1.250
	39.1	76.5	13.21	257	256.25	89.50	1.56	13.209
	41.7	75	2.60	255	255.75	88.00	1.54	2.598
	42.25	65	0.55	245	250.00	78.00	1.36	0.538
	45.29	69	3.04	249	247.00	82.00	1.43	3.010
	45.42	60	0.13	240	244.50	73.00	1.27	0.124
	52.9	78	7.48	258	249.00	91.00	1.59	7.479
	53.65	78	0.75	258	258.00	91.00	1.59	0.750
	55.15	79	1.50	259	258.50	92.00	1.61	1.499
	56.03	78	0.88	258	258.50	91.00	1.59	0.880
	56.67	74	0.64	254	256.00	87.00	1.52	0.639
	70.9	70	14.23	250	252.00	83.00	1.45	14.124
	71.6	70.5	0.70	251	250.25	83.50	1.46	0.696
	82.92	74	11.32	254	252.25	87.00	1.52	11.304
	88.23	74	5.31	254	254.00	87.00	1.52	5.303
	97.8	75	9.57	255	254.50	88.00	1.54	9.564
								4.561
								4.944
								0.219
EW	44.72	273		93		74.00	1.29	
82-285	48.81	271.5	4.09	92	92.25	75.50	1.32	3.960
	48.96	90	0.15	270	180.75	77.00	1.34	0.146
	49.14	90	0.18	270	270.00	77.00	1.34	0.175
	49.9	272	0.76	92	181.00	75.00	1.31	0.734
	50.29	275	0.39	95	93.50	72.00	1.26	0.371
	53.4	88	3.11	268	181.50	79.00	1.38	3.053
	54.45	82	1.05	262	265.00	85.00	1.45	1.046
		90		270	266.00	77.00	1.34	0.000
	55.72	88	1.27	268	269.00	79.00	1.38	1.247
	55.9	88	0.18	268	268.00	79.00	1.38	0.177
	57.82	86	1.92	266	267.00	81.00	1.41	1.896
	69.61	276	11.79	96	181.00	71.00	1.24	11.148
	72.9	86.5	3.29	267	181.25	80.50	1.40	3.245
	72.93	85	0.03	265	265.75	82.00	1.43	0.030
	91.24	279	18.31	99	182.00	68.00	1.19	16.977
	97.1	281	5.86	101	100.00	66.00	1.15	5.353
	91.2	285	-5.90	105	103.00	62.00	1.08	5.209
								3.222
								4.571
								0.310

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
7-6-00-2								
Excelsior Glen	SL =	305	125					
NS 6-16	a1	1.1	16		196	71.00	1.24	
	a2	3.55	15	2.45	195	195.50	1.22	2.302
	a3	5	6	1.45	186	190.50	1.06	1.268
	a5	4.59	15	-0.41	195	190.50	1.22	0.385
	0	-0.09	10	-4.68	190	192.50	1.13	4.242
AVE								2.049
STD.								1.658
Freq.								0.488
EW 84-89	a4	5.29	84		264	41.00	0.72	
	b4	19.81	88	19.81	268	266.00	0.65	11.922
	b2	21.67	89	16.38	269	267.00	0.63	9.628
AVE								10.775
STD.								1.622
Freq.								0.093
NE	b1	24.25	49					
WNW	b3	48 see	304					
ENE	b5	17.15	70					
NNW 330-339	b8	9.79	338		158	33.00	0.58	
	b7	15.18	339	5.39	159	158.50	0.59	3.014
	b6	19.62	330	4.44	150	155.87	0.44	1.876
AVE								2.445
STD.								0.804
Freq.								0.409
7-6-00-3								
Hector Falls	SL =	62	242					
NNE	a1	0.04	31					
NW 333-338	a2	0.55	335		155	87.00	1.52	
	a4	0.86	338	0.31	158	156.50	1.47	0.308
	a5	1.1	335	0.24	155	156.00	1.52	0.240
	a6	1.45	334	0.35	154	155.67	1.54	0.350
	a7	1.6	335	0.15	155	154.67	1.52	0.150
	b9	1.635	336	0.03	156	155.00	1.50	0.035
	b1	10.59	333	8.96	153	154.67	1.55	8.954
AVE								1.673
STD.								3.569
Freq.								0.598
NS 354-10	a3	0.8	10		190	128.00	2.23	
	b8	3.62	354.5	2.82	175	182.25	1.96	2.605
	b5	8.79	356	5.17	176	180.17	1.99	4.723
	b7	8.81	354	0.02	174	174.83	1.95	0.019
	b4	10.2	356	1.39	176	175.33	1.99	1.270
	b2	10.75	0	0.55	180	176.67	2.06	0.486
	b3	10.8	5	0.05	185	180.33	2.15	0.042
AVE								1.524
STD.								1.844
Freq.								0.656
ENE	b6	6.85	67					
7-7-00-4								
Seneca Lake inlet	SL (A-B) =	80	260	SL (C) =	345	165	SL (D) =	0
NNW 332-338	1a	0	338		158	78.00	1.36	
	2a	0.2	332	0.20	152	155.00	1.26	0.190
	6a	1.31	337	1.11	157	155.67	1.34	1.082
	7a	1.64	335	0.33	155	154.67	1.31	0.319
	a19	5.42	335	3.78	155	155.67	1.31	3.651
	a20	5.19	337	-0.23	157	155.67	1.34	0.224
	a21	6	333	0.81	153	155.00	1.27	0.775
AVE								1.040
STD.								1.327
Freq.								0.961
NS 342-4	3a	0.44	348		168	88.00	1.54	
	4a	0.69	348	0.25	168	168.00	1.54	0.250
	5a	0.88	4	0.19	184	173.33	1.33	0.184
	8a	2.09	345.34	1.21	165	172.45	1.49	1.206
	9a	2.29	350	0.20	170	173.11	1.57	0.200
	10a	2.56	350	0.27	170	168.45	1.57	0.270
	a11	2.68	347	0.12	167	169.00	1.52	0.120

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average heml)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	a12	3.11	352	0.43	172	169.67	88.00	1.54	0.430
	a13	3.68	351	0.57	171	170.00	89.00	1.55	0.570
	a14	4.68	342	1.00	162	168.33	82.00	1.43	0.990
	a15	5.27	342	0.59	162	165.00	82.00	1.43	0.584
	a16	4.95	345	10.22	165	163.00	85.00	1.48	10.181
	a17	5.11	346	0.16	166	164.33	86.00	1.50	0.160
	b1	0	356	5.11	176	169.00	84.00	1.47	5.082
	b2	0.4	355	0.40	175	172.33	85.00	1.48	0.398
	b3	1.34	342	0.94	162	171.00	82.00	1.43	0.931
AVE									2.889
STD.									4.020
Freq.									0.346
ENE	a18	c-note	76						
EW	c1	0	81		261		84.00	1.47	
76-86	c2	1.2	80	1.20	260	260.50	85.00	1.48	1.195
	c3	1.89	82	0.69	262	261.00	83.00	1.45	0.685
	c4	2.68	86	0.79	266	262.67	79.00	1.38	0.775
	c5	3.16	78	0.48	258	262.00	87.00	1.52	0.479
	c6	3.9	76	0.74	256	260.00	89.00	1.55	0.740
AVE									0.775
STD.									0.262
Freq.									1.290
EW	d1	0.68	86		266		86.00	1.50	
79-86	d2	0.96	83	0.28	263	264.50	83.00	1.45	0.278
	d3	1.19	84	0.23	264	264.33	84.00	1.47	0.229
	d4	1.53	79	0.34	259	262.00	79.00	1.38	0.334
	d5	2.09	84	0.56	264	262.33	84.00	1.47	0.557
AVE									0.349
STD.									0.145
Freq.									2.863

Site 7 7-11-00-7 Warner rd 2 QD&SL = 60 260									
NS	a0	0.42	351		171		91.00	1.59	
335-0	a1	0.62	350	0.20	170	170.50	90.00	1.57	0.200
	a2	0.83	355	0.21	175	172.50	85.00	1.48	0.209
	a3	1.41	352	0.58	172	173.50	88.00	1.54	0.580
	a5	1.85	354	0.44	174	173.00	86.00	1.50	0.439
	a7	2.19	350	0.34	170	172.00	90.00	1.57	0.340
	a8	2.59	351	0.40	171	170.50	89.00	1.55	0.400
	a9	2.9	350	0.31	170	170.50	90.00	1.57	0.310
	b12	3.84	343	0.94	163	166.50	83.00	1.45	0.933
	a10	3.95	354	0.11	174	168.50	86.00	1.50	0.110
	a13	4.74	351	0.79	171	172.50	89.00	1.55	0.790
	b9	5.34	345	0.60	165	168.00	85.00	1.48	0.598
	a14	6.89	346	1.55	166	165.50	86.00	1.50	1.546
	a15		345	-6.89	165	165.50	85.00	1.48	6.864
	a16	6.97	345	6.97	165	165.00	85.00	1.48	6.943
	a17	7.09	338	0.12	158	161.50	78.00	1.36	0.117
	a18	7.45	345	0.36	165	161.50	85.00	1.48	0.359
	a19	7.71	340	0.26	160	162.50	80.00	1.40	0.256
	a20	8.68	349	0.97	169	164.50	89.00	1.55	0.970
	a22	9.73	345	1.05	165	167.00	85.00	1.48	1.046
	b8	10.74	353	1.01	173	169.00	87.00	1.52	1.009
	b7	11.42	351	0.68	171	172.00	89.00	1.55	0.680
	b6	14.61	351	3.19	171	171.00	89.00	1.55	3.190
	b5	17.37	339	2.76	159	165.00	79.00	1.36	2.709
	b4	21.65	0	4.28	180	169.50	80.00	1.40	4.215
	b3	21.68	335	0.03	155	167.50	75.00	1.31	0.029
	b2	25.25	338	3.57	158	156.50	78.00	1.36	3.492
	b1	26.5	340	1.25	160	159.00	80.00	1.40	1.231
AVE									2.074
STD.									2.203
Freq.									0.482
EW	a4		275						
83-275	a6		272						
	a11		84						
	a12		84						
	a21	9	84						
	c1	offline@17.37	275						
	b10	4.56	83						
	b11	3.78	84						
Not enough info to get spacings									

Site 5 7-7-00-5 N.J. People's House SL = 108 288									
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Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
NNW 327-339	a1	3.16	333		153		45.00	0.79	
	a2	3.24	331	0.08	151	152.00	43.00	0.75	0.055
	a3	3.36	332	0.12	152	151.50	44.00	0.77	0.083
	a8	13.35	333	9.99	153	152.50	45.00	0.79	7.064
	a4	14.32	334	0.97	154	153.50	46.00	0.80	0.698
	a5	14.84	335	0.52	155	154.50	47.00	0.82	0.380
	a6	14.92	336	0.08	156	155.50	48.00	0.84	0.059
	a7	15.21	337	0.29	157	156.50	49.00	0.86	0.219
	a7a	15.26	338	0.05	158	157.50	50.00	0.87	0.038
	a9	15.94	339	0.68	159	158.50	51.00	0.89	0.528
	a10	15.99	340	0.05	160	159.50	52.00	0.91	0.039
	a12	28.8	341	12.81	161	160.50	53.00	0.93	10.231
	a13	29	342	0.20	162	161.50	54.00	0.94	0.162
	a15	28.1	343	-0.90	163	162.50	55.00	0.96	0.737
	a14	28.3	344	0.20	164	163.50	56.00	0.98	0.166
AVE									1.461
STD.									3.116
Freq.									0.684
NNW 334-349	b8	30.23	337		157	157.00	49.00	0.86	
	b7	31.89	348	1.66	168	168.00	60.00	1.05	1.438
	b6	32.35	349	0.46	169	169.00	61.00	1.06	0.402
	b5	34.32	334	1.97	154	154.00	46.00	0.80	1.417
	b4	35.1	335	0.78	155	155.00	47.00	0.82	0.570
	b3	36.85	340	1.75	160	160.00	52.00	0.91	1.379
	b2	38.25	340	1.40	160	160.00	52.00	0.91	1.103
AVE									1.052
STD.									0.457
Freq.									0.951
NNW 332-333	c3	1.95	333		153		45.00	0.79	
	c5		332	-1.95	152	152.50	44.00	0.77	1.355
AVE									1.355
STD.									
Freq.									0.738
NNW			d3	337					
NS			a11	25.87	12				
ENE 71-76	a4a		70		250		38.00	0.66	
	a16	27.05	72	27.05	252	252.00	36.00	0.63	15.900
	a17	21	71	-6.05	251	251.00	37.00	0.65	3.641
	c1	0.13	74	-20.87	254	254.00	34.00	0.59	11.670
	c2	1.07	75	0.94	255	255.00	33.00	0.58	0.512
	c4	30.5	74	29.43	254	254.00	34.00	0.59	16.457
	d1		76						
	d2		72						
AVE									9.636
STD.									7.230
Freq.									0.104

7-11-00-6 Warner rd. 1 QD									
NNW 334-338	1	0.38	338						0.38
	2	0.2	334.5						0.2
AVE									0.290
STD.									0.127
Freq.									3.448
ENE	3	0.26	76						0.26

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
Site15C 7-15-00-15 Sawmill Creek Near Peach Orchard , Hector East End of RR tunnel Q&D								
		Spacing						
EW 75-90	A0		88					
	A1	0.3	86					0.3
	A2	0.6	83					0.6
	A3	0.322	82.5					0.322
	A4	0.265	75					0.265
	A5	0.075	90					0.075
	A6	0.58	80					0.58
	A7	0.65	75					0.65
AVE								0.399
STD.								0.214
Freq.								2.507
NNW 329-336	B1		329					
	B2	2.14	336					2.14
	B3	0.27*	335					0.27
AVE								1.205
STD.								1.322
Freq.								0.830
ENE 64-68	C1		68					
	C2	1.4	67					1.4
	C3	8.1	64					8.1
AVE								4.750
STD.								4.738
Freq.								0.211
NS 351-5	D1		351					
	D2		353					
	D3		5					
7-14-00-15K Sawmill "Q&D"								
EW 75-281	a0		88					
	a1	0.29	82					0.29
	a2	0.23	90					0.23
	a3	0.18	90					0.18
	a4	0.2	79					0.2
	a5	0.35	82					0.35
	a6	0.2	79					0.2
	a7	0.27	81					0.27
	a8	0.26	88					0.26
	a9	0.26	87					0.26
	a10	0.43	81					0.43
	a11	0.43	78					0.43
	a12	0.4	75					0.4
	a13	0.43	85					0.43
	a14	0.28	83.5					0.28
	a15	0.19	89					0.19
	a16	0.31	89					0.31
	a17	0.21	89					0.21
	c1	0	281					0
	c2	0.12	89					0.12
	c3	0.11	80					0.11
	c4	0.11	82					0.11
	c5	0.22	84					0.22
	c6	0.15	88					0.15
	c7	0.12	90					0.12
	c8	0.12	90					0.12
	c9	0.13	85					0.13
	c10	0.13	65					0.13
	c11	0.51	75					0.51
	c12	0.14	85					0.14
	c13	0.12	82					0.12
AVE								0.230
STD.								0.122
Freq.								4.348

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average Strike)	Angle b/t SL and fract.	Radians	True Spacing (m)
Site 16 7-15-00-16 Sawmill Creek								
	SL =	282	102					
NNW 330-344	a1	0.39	334		154	52.00	0.91	
	a2	0.71	330	0.32	150	152.00	0.84	0.238
	a3	1.27	334	0.56	154	152.00	0.91	0.441
	a8	10.95	335	9.68	155	154.50	0.93	7.731
	a11	13.33	340	2.38	160	157.50	1.01	2.018
	a17	21.7	344	8.37	164	162.00	1.08	7.390
AVE								3.564
STD.								3.715
Freq.								0.281
NS 351-5	a4	1.38	3		183	81.00	1.41	
	a5	1.54	5	0.16	185	164.43	1.45	0.159
	a6	2.25	0	0.71	180	168.71	1.36	0.694
	a6	7.53	2	5.28	182	172.71	1.40	5.200
	a7	9.98	5	2.45	185	177.00	1.45	2.432
	10	12.73	355	2.75	175	179.14	1.87	2.630
	a12	14.85	5	2.12	185	182.14	1.45	2.104
	a19	24.36	355	9.51	175	181.25	1.27	9.094
	B12	26.57	356	2.21	176	180.67	1.29	2.124
	B3	35.59	351	9.02	171	180.18	1.20	8.421
	B1	39.8	5	4.21	185	180.18	1.45	4.179
AVE								3.704
STD.								3.041
Freq.								0.270
EW 65-89	a9	11.18	65		245	37.00	0.65	
	a13	17.62	71	6.44	251	198.29	0.54	3.317
	a14	18.8	70	1.18	250	207.57	0.56	0.625
	a15	20.17	71	1.37	251	218.43	0.54	0.706
	a16	20.9	70	0.73	250	229.00	0.56	0.387
	a18	23.93	73	3.03	253	240.71	0.51	1.469
	a20	25.3	89	1.37	269	252.71	0.23	0.308
	a21	25.5	87	0.20	267	254.50	0.26	0.052
	B2		69		249	253.89	0.58	
	B13	26.41	78	26.41	258	254.30	0.42	10.742
	B11	28.81	68	2.40	248	253.73	0.59	1.342
	B10	31.12	72	2.31	252	254.36	0.52	1.155
	B9	31.29	70	0.17	250	254.27	0.56	0.090
	B8	32.37	70	1.08	250	254.27	0.56	0.572
	B7	32.7	70	0.33	250	254.18	0.56	0.175
	B5	34.3	72	1.60	252	254.36	0.52	0.800
	B4	34.4	69	0.10	249	254.00	0.58	0.054
	B6	36.45	70	2.05	250	252.27	0.56	1.086
AVE								1.430
STD.								2.611
Freq.								0.699
7-17-00-17 Sam's Property Glen Eledrige Hollow								
NS 345-352	A1		352					
	A3	0.41	345					0.41
	A4	0.04	349					0.04
AVE								0.228
STD.								0.262
Freq.								4.444
NNW	A2	3.87	326.7					
Site 18 7-17-00-18								
	SL =	60	240					
ENE	A2	1.03m offline @A1	61					
NNW 330-335	A1	0.61	333		153	51.00	0.89	
	A3	0.79	332	0.18	152	152.50	0.87	0.138
	A4	0.99	331	0.20	151	152.00	0.86	0.151
	A5	1.32	333	0.33	153	152.25	0.89	0.256
	A6	1.87	332	0.55	152	152.20	0.87	0.421
	A8	2.33	334	0.46	154	152.50	0.91	0.362
	A7	2.57	334	0.24	154	152.71	0.91	0.189
	A9	2.78	330	0.21	150	152.38	0.84	0.156
	A10	2.84	335	0.06	155	152.67	0.93	0.048
	A11	2.96	335	0.12	155	152.90	0.93	0.096
AVE								0.202
STD.								0.123
Freq.								4.950
NS	A12	3.56	355					

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
07-24-00-32 Sawmill	SL =	325	145						
EW 78-276	a1	0.35	275		95		50.00	0.87	
	a2	1.42	86	1.07	266	180.50	59.00	1.03	0.917
	a3	2.83	277	1.41	97	152.67	48.00	0.84	1.048
	a4	3.44	80	0.61	260	179.50	65.00	1.13	0.553
	a8	7.74	89	4.30	269	197.40	56.00	0.98	3.565
	a9	8.69	84	0.95	264	208.50	61.00	1.06	0.831
	a11	10.13	78	1.44	258	215.57	67.00	1.17	1.326
	a12	10.48	86	0.35	266	221.88	59.00	1.03	0.300
	a13	11.87	80	1.39	260	226.11	65.00	1.13	1.280
	a14	14.54	80	2.67	260	229.50	65.00	1.13	2.420
	a15	15.79	86	1.25	266	232.82	59.00	1.03	1.071
	a17	17.56	275	1.77	95	232.82	50.00	0.87	1.356
	a18	22.53	276	4.97	96	217.36	49.00	0.86	3.751
	AVE								1.533
	STD.								1.119
	Freq.								0.652
NNW 329-334	a5	4	329		149		4.00	0.07	
	a10	8.68	332	4.68	152	182.57	7.00	0.12	0.570
	a16	16.4	334	7.72	154	167.43	9.00	0.16	1.208
	AVE								0.889
	STD.								0.451
	Freq.								1.125
NE 54-64	a6	6.3	54		234		89.00	1.55	
	a7	6.83	64	0.53	244	183.33	81.00	1.41	0.523
	AVE								0.523
	STD.								
	Freq.								1.910
Site 33 7-24-00-33 Logan Rd	SL =	101	281						
EW 74-85	A1	0.39	75		255		26.00	0.45	
	A3	1.78	74	1.39	254	228.20	27.00	0.47	0.631
	A6	3.7	85	1.92	265	250.40	16.00	0.28	0.529
	A8	6.5	78	2.80	258	251.67	23.00	0.40	1.094
	A12	10.65	80	4.15	260	252.86	21.00	0.37	1.487
	A15	15.15	75	4.50	255	253.13	26.00	0.45	1.973
	AVE								1.730
	STD.								0.343
	Freq.								0.578
NNW 325-335	A4	2.15	333		153		52.00	0.91	
	A5	2.26	335	0.11	155	231.88	54.00	0.94	0.089
	A7	5.34	331	3.06	151	222.89	50.00	0.87	2.359
	A9	8.09	327	2.75	147	215.30	46.00	0.80	1.978
	A10	8.3	334	0.21	154	209.73	53.00	0.93	0.168
	A11	10.5	325	2.20	145	204.33	44.00	0.77	1.528
	A13	13.17	331	2.67	151	200.23	50.00	0.87	2.045
	A14	13.85	330	0.68	150	196.64	49.00	0.86	0.513
	A16	15.73	331	1.88	151	193.60	50.00	0.87	1.440
	AVE								0.977
	STD.								0.655
	Freq.								1.024
NW	A2	Offline at 1.78	311						
RDJ 71 10-18-00	QD								
	Set A								
NS	1	0.26	347						0.26
		0.13	347						0.13
		0.52	347						0.52
		1.3	347						1.3
	AVE								0.553
	STD.								0.524
	Freq.								1.810
	Set B								
ENE 70-77	2	0.27	77						0.27
	3	0.31	70						0.31
		0.05	70						0.05
		0.24	70						0.24
		0.3	70						0.3
		1.3	70						1.3
	AVE								0.412
	STD.								0.445
	Freq.								2.429

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
10-19-00 rdj73a	QD							
NNW	A1			334				
328-334	A2	2.55		333				2.55
	A3	0.08		328				0.08
	A4	0.08		328				0.08
	AVE							0.903
	STD.							1.426
	Freq.							1.107
NS	A5			352				
352-3	A6	0.46		3				0.46
	AVE							0.460
	STD.							
	Freq.							2.174
10-19-00 RDJ 73b Habers'	QD							
NNE	a1		36					
30-36	a2	1	30					1
	a3	0.45	32					0.45
	a4	0.5	32					0.5
	AVE							0.650
	STD.							0.304
	Freq.							1.538
EW	b1		275					
78-285	b2	0.51	274					0.51
	b3	0.2	82					0.2
	b4	0.16	82					0.16
	b5	0.08	276					0.08
	b6	0.1	81					0.1
	b7	0.2	80					0.2
	b8	0.91	78					0.91
	c1		273					
	c2	1.6	275					1.6
	c3	2.8	285					2.8
	AVE							1.770
	STD.							0.956
	Freq.							0.565
10-19-00-RDJ73 Habers' drive								
NNW	a1	0	342					
332-342	a2	0.19	342					0.19
	a3	0.26	340					0.26
	a4	0.6	340					0.6
	a5	0.25	340					0.25
	a6	0.11	338					0.11
	b1	0.1	336					0.1
	b2	0.04	335					0.04
	b3	0.04	334					0.04
	b3a	0.05	334					0.05
	b4	0.04	332					0.04
	b5	0.09	335					0.09
	a7	0.31	338					0.31
	a8	0.14	341					0.14
	a9	0.12	341					0.12
	a10	0.14	341					0.14
	a11	0.22	340					0.22
	a12	0.66	340					0.66
	b6	0	334					0
	b7	0.03	334					0.03
	b8	0.05	336					0.05
	b9	0.02	336					0.02
	AVE							0.165
	STD.							0.178
	Freq.							6.069
10-19-00-RDJ74b top, Nipantuk								
NW	a1	0	332					
332-338	a2	0.11	334					0.11
	a3	0.22	335					0.22
	a4	0.6	338					0.6
	a5	0.16	332					0.16
	a6	0.76	332					0.76
	AVE							0.370
	STD.							0.291
	Freq.							2.703

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
EW 85,86	b1	0	86					
	b2	2.1	85					2.1
	AVE							2.100
	STD.							0.476
	Freq.							
NS 4-13	c1	0	4					
	c2	0.2	9					0.2
	c3	0.08	13					0.08
	AVE							0.140
	STD.							0.085
	Freq.							7.143
10-19-00-rd 74 Nipantuk Cr.								
NNW 324-342	a1		335					
	a2	0.42	336					0.42
	a3	0.21	334					0.21
	a4	0.49	324					0.49
	a5	0.34	329					0.34
	a6	0.76	330					0.76
	a7	1.1	335					1.1
	a8	1.11	335					1.11
	a9	1	339					1
	a10	1.25	342					1.25
	a11	1.25	339					1.25
	AVE							0.793
	STD.							0.399
	Freq.							1.261
NS	a12	1.17	350					1.17
NE-ENE 50-78	b1		78					
	b2	3	50					3
	b3	1.85	74					1.85
	AVE							2.425
	STD.							0.813
	Freq.							0.412

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Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
08-04-00-52								
16 Falls Creek	SL Orient.=	340	160.00					
ENE		0.931	81.00		261	261.00	79.00	1.38
72-85		1.15	75.00	0.22	255	258.00	85.00	1.48
		1.4	80.00	0.25	260	257.50	80.00	1.40
		1.85	78.00	0.45	258	259.00	82.00	1.43
		2.54	79.00	0.69	259	258.50	81.00	1.41
		2.92	80.00	0.38	260	259.50	80.00	1.40
		3.06	79.00	0.14	259	259.50	81.00	1.41
		3.66	72.00	0.60	252	255.50	88.00	1.54
		3.82	82.00	0.16	262	257.00	78.00	1.36
		3.9	75.00	0.08	255	258.50	85.00	1.48
		4.2	85.00	0.30	265	260.00	75.00	1.31
		4.6	80.00	0.40	260	262.50	80.00	1.40
		5.07	80.00	0.47	260	260.00	80.00	1.40
		5.49	80.00	0.42	260	260.00	80.00	1.40
		6.15	82.00	0.66	262	261.00	78.00	1.36
		7.43	79.00	1.28	259	260.50	81.00	1.41
		8.57	78.00	1.14	258	258.50	82.00	1.43
	AVE							0.47
	STD.							0.33
	Freq.							2.12
NNW		4.8	345.00		165		5.00	0.09
340-345		5.3	340.00	0.50	160	162.50	0.00	0.50
		8.15	340.00	2.85	160	160.00	0.00	0.00
	AVE							1.68
	STD.							1.66
	Freq.							0.60
NS		3.8	0.00		180		20.00	0.35
0-4		5.75	4.00	1.95	184	182.00	24.00	0.42
	AVE							0.79
	STD.							0.79
	Freq.							1.26
EW		2.37	285.00					
280-285		4.07	280.00	1.70	100	100.00	60.00	1.05
	AVE							1.47
	STD.							1.47
	Freq.							0.68
8-4-00-53								
Sixteen Falls Creek	SL Orient.=	226						
ENE		0	85.00		265		39.00	0.68
76-85		.36	78.00	0.36	258	261.50	32.00	0.56
		1.85	81.00	1.49	261	259.50	35.00	0.61
		2.96	76.00	1.11	256	258.50	30.00	0.52
		3.32	79.00	0.36	259	257.50	33.00	0.58
		3.6	80.00	0.28	260	259.50	34.00	0.59
		3.885	76.00	0.29	256	258.00	30.00	0.52
		4.34	81.00	0.46	261	258.50	35.00	0.61
		4.6	81.00	0.26	261	261.00	35.00	0.61
		4.63	80.00	0.03	260	260.50	34.00	0.59
		5.10	81.00	0.47	261	260.50	35.00	0.61
		6.99	79.00	1.89	259	260.00	33.00	0.58
		7.43	81.00	0.44	261	260.00	35.00	0.61
	AVE							0.34
	STD.							0.31
	Freq.							2.95
NS		2.21	6.00		186	186.00	40.00	0.70
5-12		2.55	9.00	0.34	189	187.50	37.00	0.65
		4.37	8.00	1.82	188	188.50	38.00	0.66
		4.8	12.00	0.43	192	190.00	34.00	0.59
		4.975	8.00	0.18	188	190.00	38.00	0.66

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
								0.42
								0.47
								2.39
AVE								
STD.								
Freq.								
NNW	5.89	335.00						

8-8-00-54								
Sixteen Falls Creek	SL Orient.=	260						
NS	NS	0	0.00		180		80.00	1.40
0-5	0	.025	0.00	0.03	180	180.00	80.00	1.40
RDJ 53A		0.07	0.00		180		80.00	1.40
		0.14	0.00	0.07	180	180.00	80.00	1.40
		0.17	0.00	0.03	180	180.00	80.00	1.40
		0.2	0.00	0.03	180	180.00	80.00	1.40
		0.24	0.00	0.04	180	180.00	80.00	1.40
		0.247	0.00	0.01	180	180.00	80.00	1.40
		0.27	0.00	0.02	180	180.00	80.00	1.40
		0.288	0.00	0.02	180	180.00	80.00	1.40
		0.328	5.00	0.04	185	182.50	75.00	1.31
		0.334	5.00	0.01	185	185.00	75.00	1.31
		0.344	5.00	0.01	185	185.00	75.00	1.31
		0.348	5.00	0.00	185	185.00	75.00	1.31
		0.378	5.00	0.03	185	185.00	75.00	1.31
		0.43	5.00	0.05	185	185.00	75.00	1.31
		0.49	5.00	0.06	185	185.00	75.00	1.31
		0.544	5.00	0.05	185	185.00	75.00	1.31
		0.59	5.00	0.05	185	185.00	75.00	1.31
		0.67	5.00	0.08	185	185.00	75.00	1.31
		0.744	5.00	0.07	185	185.00	75.00	1.31
		0.756	5.00	0.01	185	185.00	75.00	1.31
		0.799	5.00	0.04	185	185.00	75.00	1.31
		0.888	5.00	0.09	185	185.00	75.00	1.31
		0.98	5.00	0.09	185	185.00	75.00	1.31
AVE								0.04
STD.								0.03
Freq.								25.34

8-9-00-55								
RDJ 19	SL Orient.=	168.00	348.00					
ENE		0	79.00		259		89.00	1.55
78-81		.25	81.00	0.25	261	260.00	87.00	1.52
		.435	80.00	0.19	260	260.50	88.00	1.54
		.5	80.00	0.07	260	260.00	88.00	1.54
		.69	79.00	0.19	259	259.50	89.00	1.55
		.72	78.00	0.03	258	258.50	90.00	1.57
		.745	79.00	0.03	259	258.50	89.00	1.55
		.87	79.00	0.13	259	259.00	89.00	1.55
		1.075	79.00	0.21	259	259.00	89.00	1.55
		1.22	79.00	0.15	259	259.00	89.00	1.55
		1.335	79.00	0.12	259	259.00	89.00	1.55
		1.51	79.00	0.18	259	259.00	89.00	1.55
		1.81	79.00	0.30	259	259.00	89.00	1.55
		1.94	80.00	0.13	260	259.50	88.00	1.54
		2.12	80.00	0.18	260	260.00	88.00	1.54
		2.71	78.00	0.59	258	259.00	90.00	1.57
		2.80	79.00	0.09	259	258.50	89.00	1.55
		3.035	78.00	0.24	258	258.50	90.00	1.57
		3.4	79.00	0.37	259	258.50	89.00	1.55
AVE								0.19
STD.								0.13
Freq.								5.30
NS		0.76	8.00		188		20.00	0.35
8-12		.88	8.00	0.12	188	188.00	20.00	0.35
		.98	12.00	0.10	192	190.00	24.00	0.42
		11.65	8.00	10.67	188	190.00	20.00	0.35
		11.8	9.00	0.15	189	188.50	21.00	0.37
		12.4	11.00	0.60	191	190.00	23.00	0.40
		12.43	11.00	0.03	191	191.00	23.00	0.40

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	14.99	9.00	2.56	189	190.00	21.00	0.37	0.92
	18.82	9.00	3.83	189	189.00	21.00	0.37	1.37
AVE								0.79
STD.								1.26
Freq.								1.27

8-8-00-56c	RDJ 18 SL							
Sixteen Falls Creek	Orient.=	338.00						
ENE	0	79.00		259		79.00	1.38	
77-81	.081	79.00	0.08	259	259.00	79.00	1.38	0.08
	.098	79.00	0.02	259	259.00	79.00	1.38	0.02
	1.16	77.00	1.06	257	258.00	81.00	1.41	1.05
	1.23	78.00	0.07	258	257.50	80.00	1.40	0.07
	1.31	78.00	0.08	258	258.00	80.00	1.40	0.08
	2.025	81.00	0.72	261	259.50	77.00	1.34	0.70
	2.075	79.00	0.05	259	260.00	79.00	1.38	0.05
	2.12	79.00	0.04	259	259.00	79.00	1.38	0.04
	2.265	79.00	0.15	259	259.00	79.00	1.38	0.14
	2.95	77.00	0.69	257	258.00	81.00	1.41	0.68
	3.45	78.00	0.50	258	257.50	80.00	1.40	0.49
	3.295	78.00	-0.16	258	258.00	80.00	1.40	0.15
	3.525	78.00	0.23	258	258.00	80.00	1.40	0.23
	3.62	78.00	0.10	258	258.00	80.00	1.40	0.09
	3.715	78.00	0.09	258	258.00	80.00	1.40	0.09
	4.095	77.00	0.38	257	257.50	81.00	1.41	0.38
	4.23	78.00	0.14	258	257.50	80.00	1.40	0.13
	4.505	78.00	0.27	258	258.00	80.00	1.40	0.27
	4.67	77.00	0.17	257	257.50	81.00	1.41	0.16
	4.76	78.00	0.09	258	257.50	80.00	1.40	0.09
	4.91	77.00	0.15	257	257.50	81.00	1.41	0.15
	5.01	78.00	0.10	258	257.50	80.00	1.40	0.10
AVE								0.24
STD.								0.26
Freq.								4.20
EW	1.70	275.00						
NS	2.69	10.00						

8-9-00-56A	SL							
Sixteen Falls Creek	Orient.=	300	120.00					
NS	0	8.50		189		68.50	1.20	
8.5-15	.33	15.00	0.33	195	191.75	75.00	1.31	0.32
AVE								0.32
STD.								3.14
Freq.								
NNW	.09	329.00		149		29.00	0.51	
329-337	.165	331.00	0.08	151	150.00	31.00	0.54	0.04
	.36	332.00	0.20	152	151.50	32.00	0.56	0.10
	.52	333.00	0.16	153	152.50	33.00	0.58	0.09
	1.52	337.00	1.00	157	155.00	37.00	0.65	0.60
AVE								0.21
STD.								0.26
Freq.								4.81
ENE	.476	75.00		255		45.00	0.79	
74-75	.87	74.00	0.39	254	254.50	46.00	0.80	0.28
	1.152	75.00	0.28	255	254.50	45.00	0.79	0.20
	1.195	74.00	0.04	254	254.50	46.00	0.80	0.03
AVE								0.17
STD.								0.13
Freq.								5.84

Site 57								
SL Orient.=	130.00	310.00						

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
NNW 330-354	1.38	342.00		162	162.00	32.00	0.56	
	2.93	343.00	1.55	163	162.50	33.00	0.58	0.84
	7.2	340.00	4.27	160	161.50	30.00	0.52	2.14
	9.10	334.00	1.90	154	157.00	24.00	0.42	0.77
	9.43	330.00	0.33	150	152.00	20.00	0.35	0.11
	9.54	335.00	0.11	155	152.50	25.00	0.44	0.05
	11.12	333.00	1.58	153	154.00	23.00	0.40	0.62
	11.34	333.00	0.22	153	153.00	23.00	0.40	0.09
	11.39	332.00	0.05	152	152.50	22.00	0.38	0.02
	11.84	333.00	0.45	153	152.50	23.00	0.40	0.18
	12.03	337.00	0.19	157	155.00	27.00	0.47	0.09
	12.11	335.00	0.08	155	156.00	25.00	0.44	0.03
	12.2	337.00	0.09	157	156.00	27.00	0.47	0.04
	12.42	337.00	0.22	157	157.00	27.00	0.47	0.10
	12.59	335.00	0.17	155	156.00	25.00	0.44	0.07
	13.7	335.00	1.11	155	155.00	25.00	0.44	0.47
	covered							
	14.51	335.00		155	155.00	25.00	0.44	
	14.65	336.00	0.14	156	155.50	26.00	0.45	0.06
AVE								0.35
STD.								0.23
Freq.								2.82
NS 0-12	7.19	10.00		190		60.00	1.05	
	7.6	12.00	0.41	192	191.00	62.00	1.08	0.36
	12.9	0.00	5.30	180	186.00	50.00	0.87	4.06
AVE								2.21
STD.								2.61
Freq.								0.45
ENE 74-84	0.35	78.00		258		52.00	0.91	
	1.34	75.00	0.99	255	256.50	55.00	0.96	0.81
	1.8	75.00	0.46	255	255.00	55.00	0.96	0.38
	2.77	74.00	0.97	254	254.50	56.00	0.98	0.80
	2.9	78.00	0.13	258	256.00	52.00	0.91	0.10
	3.98	77.00	1.08	257	257.50	53.00	0.93	0.86
	4.265	75.00	0.29	255	256.00	55.00	0.96	0.23
	4.38	77.00	0.12	257	256.00	53.00	0.93	0.09
	4.48	76.00	0.10	256	256.50	54.00	0.94	0.08
	5.00	76.00	0.52	256	256.00	54.00	0.94	0.42
	5.735	84.00	0.74	264	260.00	46.00	0.80	0.53
	5.87	84.00	0.14	264	264.00	46.00	0.80	0.10
	6.235	76	0.37	256	260.00	54.00	0.94	0.30
	6.92	74.00	0.69	254	255.00	56.00	0.98	0.57
	7.37	77.00	0.45	257	255.50	53.00	0.93	0.36
	7.58	81.00	0.21	261	259.00	49.00	0.86	0.16
	8.09	77.00	0.51	257	259.00	53.00	0.93	0.41
	8.65	76.00	0.56	256	256.50	54.00	0.94	0.45
	8.69	77.00	0.04	257	256.50	53.00	0.93	0.03
	9.92	77.00	1.23	257	257.00	53.00	0.93	0.98
	10.53	75.00	0.61	255	256.00	55.00	0.96	0.50
	11.18	78.00	0.65	258	256.50	52.00	0.91	0.51
	11.77	77.00	0.59	257	257.50	53.00	0.93	0.47
AVE								0.42
STD.								0.27
Freq.								2.40

8-9-00-58								
Sixteen Falls Creek	SL Orient. =	300.00	120.00					
ENE 72-80	0	78.00		258		52.00	0.91	
	hidden but same direction							
	hidden but same direction							
	1.81	77.00		257		43.00	0.75	
	2.21	76.00	0.40	256	256.50	44.00	0.77	0.28
	2.265	74.00	0.06	254	255.00	46.00	0.80	0.04
	2.305	77.00	0.04	257	255.50	43.00	0.75	0.03

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	3.375	75.00	1.07	255	256.00	45.00	0.79	0.76
	3.52	78.00	0.15	258	256.50	42.00	0.73	0.10
	3.99	77.00	0.47	257	257.50	43.00	0.75	0.32
	4.39	76.00	0.40	256	256.50	44.00	0.77	0.28
	4.65	75.00	0.26	255	255.50	45.00	0.79	0.18
	5.01	80.00	0.36	260	257.50	40.00	0.70	0.23
	5.85	75.00	0.84	255	257.50	45.00	0.79	0.59
	6.15	75.00	0.30	255	255.00	45.00	0.79	0.21
	6.35	75.00	0.20	255	255.00	45.00	0.79	0.14
	6.58	76.00	0.23	256	255.50	44.00	0.77	0.16
	7.13	72.00	0.55	252	254.00	48.00	0.84	0.41
	7.19	74.00	0.06	254	253.00	46.00	0.80	0.04
	7.63	75.00	0.44	255	254.50	45.00	0.79	0.31
	8.025	74.00	0.40	254	254.50	46.00	0.80	0.28
	8.69	75.00	0.66	255	254.50	45.00	0.79	0.47
	9.12	76.00	0.43	256	255.50	44.00	0.77	0.30
	9.24	75.00	0.12	255	255.50	45.00	0.79	0.08
	9.51	74.00	0.27	254	254.50	46.00	0.80	0.19
	9.85	75.00	0.34	255	254.50	45.00	0.79	0.24
	10.2	77.00	0.35	257	256.00	43.00	0.75	0.24
	11.38	77.00	1.18	257	257.00	43.00	0.75	0.80
	11.68	73.00	0.30	253	255.00	47.00	0.82	0.22
	11.96	76.00	0.28	256	254.50	44.00	0.77	0.19
	12.02	75.00	0.06	255	255.50	45.00	0.79	0.04
	12.32	75.00	0.30	255	255.00	45.00	0.79	0.21
	12.54	76.00	0.22	256	255.50	44.00	0.77	0.15
	12.73	75.00	0.19	255	255.50	45.00	0.79	0.13
AVE								0.26
STD.								0.19
Freq.								3.92
NS 352-10	1.35	352.00		172		52.00	0.91	
	1.62	4.00	0.27	184	178.00	64.00	1.12	0.24
	6.63	8.00	5.01	188	186.00	68.00	1.19	4.65
	10.55	10.00	3.92	190	189.00	70.00	1.22	3.68
AVE								2.86
STD.								2.31
Freq.								0.35
NE	9.04	44.00						
NNW	6.8	325.00						

8-9-00-59A Sixteen Falls Creek QD								
ENE 75	0.72	75.00						0.72
	0.66	75.00						0.66
	0.6	75.00						0.6
	0.55	75.00						0.55
	0.83	75.00						0.83
	0.53	75.00						0.53
	Gap w/ no data, edge of FID father to the south							
		75.00						
	0.98	75.00						0.98
	1	75.00						1
AVE								0.73
STD.								0.19
Freq.								1.36
NNW 335	0.34	335						0.34
	0.29	335						0.29
	0.68	335						0.68
	1.08	335						1.08
	0.56	335						0.56
AVE								0.59
STD.								0.32
Freq.								1.69

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-Average hemi)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
8-9-00-59b Sixteen Falls Creek	RDJ 15b SL Orient. = 100	280.00	*** see notes					
ENE 59-79	0	70.00	0.00	250	250.00	30.00	0.52	0.00
	0.658	71.00	0.66	251	250.50	29.00	0.51	0.32
	1.04	59.00	0.38	239	245.00	41.00	0.72	0.25
	1.46	70.00	0.42	250	244.50	30.00	0.52	0.21
	1.65	69.00	0.19	249	249.50	31.00	0.54	0.10
	1.75	70.00	0.10	250	249.50	30.00	0.52	0.05
	1.83	72.00	0.08	252	251.00	28.00	0.49	0.04
	2.43	75.00	0.60	255	253.50	25.00	0.44	0.25
	2.9	74.00	0.47	254	254.50	26.00	0.45	0.21
	3.34	76.50	0.44	257	255.25	23.50	0.41	0.18
	3.8	75.00	0.46	255	255.75	25.00	0.44	0.19
	4.3	75.00	0.50	255	255.00	25.00	0.44	0.21
	4.85	78.00	0.55	258	256.50	22.00	0.38	0.21
	5	79.00	0.15	259	258.50	21.00	0.37	0.05
	5.1	76.00	0.10	256	257.50	24.00	0.42	0.04
	AVE							0.15
	STD.							0.10
	Freq.							6.50
	8.62	75.00						
	27.1	75's						
	At 30.6 (spacing below)	75's						
	0.47	75						0.47
	0.47	75						0.47
	At 38m (spacing below)	75's						
	0.135	75						0.135
	0.3	75						0.3
	0.24	75						0.24
	AVE							0.32
	STD.							0.15
	Freq.							3.10
ENE Ave ENE Freq.								0.24 4.20
EW 80-90	2.7	80.00		260		20.00	0.35	
	3.05	80.00	0.35	260	260.00	20.00	0.35	0.12
	3.3	90.00	0.25	270	265.00	10.00	0.17	0.04
	3.51	85.00	0.21	265	267.50	15.00	0.26	0.05
	4.49	80.00	0.98	260	262.50	20.00	0.35	0.34
	5.3	80.00	0.81	260	260.00	20.00	0.35	0.28
	5.82	80.00	0.52	260	260.00	20.00	0.35	0.18
	AVE							0.17
	STD.							0.12
	Freq.							5.96
NNW	At 8.5m 330's, spacing (80's are spaced normally)							
	0.14	330						0.14
	0.16	330						0.16
	0.07	330						0.07
	0.16	330						0.16
	AVE							0.13
	STD.							0.04
	Freq.							7.55

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
NNW	At 8.5m 330's, spacing (80's are spaced normally)							
	0.14	330						0.14
	0.16	330						0.16
	0.07	330						0.07
	0.16	330						0.16
	AVE							0.13
	STD.							0.04
	Freq.							7.55
NNW	23	8.11	333.00		153	127.00	2.22	
	24	8.22	335.00	0.11	155	154.00	2.18	0.09
	25	8.29	335.00	0.07	155	155.00	2.18	0.06
	27*	8.48	337.00	0.19	157	156.00	2.15	0.16
	28*	8.66	330	0.18	150	153.50	2.27	0.14
	AVE							0.11
	STD.							0.05
	Freq.							9.00
NNW	At 9.6m 330's, spacing (80's are spaced normally)							
	0.05	330						0.05
	0.04	330						0.04
	0.08	330						0.08
	0.04	330						0.04
	0.08	330						0.08
	0.02	330						0.02
	0.02	330						0.02
	AVE							0.05
	STD.							0.02
	Freq.							21.21
NNW	At 20m (spacing below)		330's					
	0.3	330						0.3
	AVE							0.30
	STD.							3.33
NNW	At 22.7m (spacing below)		330's					
	0.3	330						0.3
	AVE							0.30
	STD.							3.33
	At 27-29m (spacings below)		333's					
	0.07							0.07
	0.06							0.06
	0.06							0.06
	0.07							0.07
	0.07							0.07
	AVE							0.07
	STD.							0.01
	Freq.							15.15
	(spacing below)		330's					
	0.33	330						0.33
	0.35	330						0.35

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	AVE								0.34
	STD.								0.01
	Freq.								2.94
NNW Ave.									0.21
NNW Freq.									4.78
NS	28A	17.5	0.00	17.50	180	180.00	80.00	1.40	17.23
0-7	29	19.3	7.00	1.80	187	183.50	87.00	1.52	1.80
	AVE								9.52
	STD.								10.92
	Freq.								0.11

8-9-00-60 Sixteen Falls Creek	RDJ 15A QD								
		Set A (spacing and orientations don't match)							
NNW		1.45	335						1.45
335-355		0.52	353						0.52
		0.12	355						0.12
		0.36	355						0.36
		0.11	355						0.11
		0.9	355						0.9
		1.04	355						1.04
	AVE								0.64
	STD.								0.50
	Freq.								1.56
		Set B (spacing and orientations don't match)							
EW		1	275						1
275		1.03	275						1.03
	AVE								1.02
	STD.								0.02
	Freq.								0.99

8-9-00-61c Sixteen Falls Creek	QD								
		Set A (spacing and orientations don't match)							
ENE		0.55	72						0.55
72		0.85	72						0.85
		1.66	72						1.66
		0.53	72						0.53
	AVE								0.90
	STD.								0.53
	Freq.								1.11
		Set B (spacing and orientations don't match)							
NNW		Spacing from SW FID							
338									

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract.	Radlans	True Spacing (m)
	1.17	338					1.17
	0.28	338					0.28
	0.51	338					0.51
	1	338					1
	0.35	338					0.35
	0.19	338					0.19
	0.19	338					0.19
	0.23	338					0.23
	0.19	338					0.19
	0.1	338					0.1
	0.17	338					0.17
	0.15	338					0.15
	0.2	338					0.2
	0.14	338					0.14
AVE							0.35
STD.							0.33
Freq.							2.87

8-9-00-62, 8-16-00-62	SL Orient.=	65.00	245.00				
NNW	0.14	339.00	159	86.00	1.50		
332-340	0.78	340.00	0.65	160	159.50	85.00	0.64
	1.12	333.00	0.34	153	156.50	88.00	0.34
	3.00	332.00	1.31	152	152.00	87.00	1.31
	3.20	334.00	0.20	154	153.00	89.00	0.20
	3.74	335.00	0.54	155	154.50	90.00	0.54
	5.36	336.00	1.62	156	155.50	89.00	1.62
AVE							0.78
STD.							0.56
Freq.							1.29
NS	1.69	350.00					

8-15-00-64A						
NS	5.00					
345-6	345.00					0.73
	350.00					0.79
QD	4.00					0.62
	358.00					0.25
	3.00					0.73
	2.00					0.21
	6.00					0.79
	346.00					0.5
	350.00					0.86
	351.00					0.8
	352.00					0.13
	350.00					0.26
	350.00					0.14
AVE						0.52
STD.						0.27
Freq.						1.91
ENE	74.00					
74-82	75.00					0.12
	82.00					0.74
						Poss.
						Covered
	74.00					4.25
AVE						0.51
STD.						0.63
Freq.						1.95

RDJ 21		
8-16-00	QD	
EW	7.00	
82-87	7.00	1.4

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Strike	Angle b/t SL and fract. Radians	True Spacing (m)
		7.00					2.74
		AVE					2.07
		STD.					0.80
		Freq.					0.48
ENE		71.00					
71-76		73.00					1.36
		74.00					0.19
		76.00					0.225
		74.00					0.27
		74.00					0.16
		74.00					0.23
		75.00					0.515
		AVE					0.42
		STD.					0.43
		Freq.					2.37
NW		307.00					
305-307		305.00					2.9
		AVE					2.90
		STD.					
		Freq.					0.34
8-15-00-64B		QD					
NNW		330.00					
326-330		329.00					0.3
		326.00					0.17
		AVE					0.24
		STD.					0.09
		Freq.					4.26
ENE		75.00					
74-76		75.00					0.43
		76.00					0.12
		74.00					0.07
		74.00					0.32
		75.00					0.16
		76.00					0.31
		74.00					0.36
		AVE					0.25
		STD.					0.14
		Freq.					3.95
8-16-00-63	SL Orient.=	89.00	269				
NS	0.18	10.00		190	190.00	79.00	
351-10		5.00					0.03
		5.00					0.03
		5.00					0.02
		5.00					0.01
		5.00					0.03
	0.54	355.00		175	175.00	86.00	1.50
	0.69	351.00	0.15	171	173.00	82.00	1.43
	1.69	352.00	1.00	172	171.50	83.00	1.45
	1.88	356.00	0.19	176	174.00	87.00	1.52
		AVE					0.19
		STD.					0.31
		Freq.					5.34
NNE	1.43	14.00					
NW	1.65	305.00					
NNW	0.27	342.00		162		73.00	1.27
328-345	0.39	342.00	0.13	162	162.00	73.00	1.27
	0.86	332.00	0.47	152	157.00	63.00	1.10
	1.16	337.00	0.30	157	154.50	68.00	1.19
	1.62	330.00	0.46	150	153.50	61.00	1.06
	1.67	340.00	0.05	160	155.00	71.00	1.24

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	2.13	345.00	0.46	165	162.50	76.00	1.33	0.45
	2.48	328.00	0.35	148	156.50	59.00	1.03	0.30
	2.96	328.00	0.48	148	148.00	59.00	1.03	0.41
	3.81	334.00	0.85	154	151.00	65.00	1.13	0.77
	4.66	329.00	0.85	149	151.50	60.00	1.05	0.74
	4.76	345.00	0.10	165	157.00	76.00	1.33	0.10
	5.29	340.00	0.53	160	162.50	71.00	1.24	0.50
AVE								0.38
STD.								0.23
Freq.								2.65
ENE	3.77	64.00						
NNE	3.83	31.00						

8-15-00-65 Highland Creek		QD	
ENE	79.00		
76-79	78.00		0.17
	78.00		0.17
	77.00		0.37
	77.00		0.09
	76.00		0.17
	76.00		0.25
	78.00		0.09
	78.00		0.27
	78.00		0.56
	78.00		0.09
	77.50		0.045
	79.00		0.52
	AVE		0.23
	STD.		0.17
	Freq.		4.29
NS	2.00		
2-15	15.00		1.5
	AVE		1.50
	STD.		
	Freq.		0.67
NNW	337.00		

8-15-00-66									
Highland Creek		SL							
SL & QD		Orient.=	190.00						
ENE	0.42	76.00		256					
58-78	0.56	76.00	0.14	256	256.00	66.00	1.15	0.13	
	0.62	76.00	0.06	256	256.00	66.00	1.15	0.06	
	0.88	78.00	0.26	258	257.00	68.00	1.19	0.24	
	1.20	77.00	0.32	257	257.50	67.00	1.17	0.29	
	1.82	75.00	0.62	255	256.00	65.00	1.13	0.56	
	2.59	77.00	0.77	257	256.00	67.00	1.17	0.71	
	3.91	65.00	1.32	245	251.00	55.00	0.96	1.08	
	4.74	58.00	0.83	238	241.50	48.00	0.84	0.62	
	5.49	75.00	0.75	255	246.50	65.00	1.13	0.68	
	5.57	75.00	0.08	255	255.00	65.00	1.13	0.07	
	5.76	77.00	0.19	257	256.00	67.00	1.17	0.17	
	offline	70.00		250	253.50	60.00	1.05		
	6.07	73.00	0.31	253	251.50	63.00	1.10	0.27	
	6.39	75.00	0.32	255	254.00	65.00	1.13	0.29	
	6.69	75.00	0.30	255	255.00	65.00	1.13	0.27	
	6.75	75.00	0.06	255	255.00	65.00	1.13	0.05	
	6.77	77.00	0.02	257	256.00	67.00	1.17	0.02	
	6.90	75.00	0.13	255	256.00	65.00	1.13	0.12	
	6.95	73.00	0.05	253	254.00	63.00	1.10	0.04	
	7.10	74.00	0.15	254	253.50	64.00	1.12	0.13	
	7.15	77.00	0.05	257	255.50	67.00	1.17	0.05	
	7.21	76.00	0.05	256	256.50	66.00	1.15	0.05	
	7.66	75.00	0.46	255	255.50	65.00	1.13	0.41	

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	STD.							0.67
	Freq.							1.36
NS	1.06	357.00		177		87.00	1.52	
353-357	2.36	355.00	1.30	175	176.00	85.00	1.48	1.30
	2.56	353.00	0.20	173	174.00	83.00	1.45	0.20
	AVE							0.75
	STD.							0.78
	Freq.							1.34
ENE	6.61	61.00						
NNE	6.97	21.00						

8-16-00-RDJ20 Highland Rd creek QD								
NS	3.00	8.00						
ENE	B Set							
58-71		69.00						
	0.70	71.00						0.700
	0.54	71.00						0.540
	0.40	70.00						0.400
	1.04	58.00						1.040
	0.66	70.00						0.660
	AVE							0.67
	STD.							0.27
	Freq.							1.50
NNW		333.00						
329-335	0.760	335.00						0.760
	4.090	335.00						4.090
	0.370	330.00						0.370
	1.050	332.00						1.050
	2.180	326.00						2.180
	0.095	329.00						0.095
						Spacing 2cm from fault	Still NNW	
	0.010	326.00						0.010
	0.015							0.015
	0.030	327.00						0.030
	0.022							0.022
	0.005							0.005
	0.017							0.017
	0.020							0.020
	0.015							0.015
	0.025							0.025
	0.040							0.040
	0.015							0.015
						Spacing 15cm from fault		
	0.100	326.00						0.100
	0.065	326.00						0.065
	0.075							0.075
	0.055							0.055
	0.090							0.090
	0.009							0.009
	0.055							0.055
	AVE							0.38
	STD.							0.93
	Freq.							2.61

8-16-00-RDJ22 Highland Rd creek QD								
NS								
2-11		2.00						
	0.215	10.00						0.215
	0.06	11						0.06
	0.3	9						0.3
	AVE							0.19

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract. Radians	True Spacing (m)
STD.						0.12
Freq.						5.22
ENE 73-77	ENE	75.00				
	0.135	75.00				0.135
	0.15	73.00				0.15
	0.38	77.00				0.38
	0.68	74.00				0.68
AVE						0.34
STD.						0.26
Freq.						2.97
RDJ 23 8-16-00 Highland Rd creek	QD					
NS 2-5		3.00				
	0.215	3.00				0.215
	0.06	2.00				0.06
	0.3	5.00				0.3
AVE						0.19
STD.						0.12
Freq.						5.22
ENE 76-79		76.00				
	0.6	77.00				0.6
	0.215	77.00				0.215
	0.34	76.00				0.34
	0.41	79.00				0.41
	0.285	77.00				0.285
	0.78	79.00				0.78
AVE						0.44
STD.						0.21
Freq.						2.28
8-16-00-RDJ24a Highland Rd creek	QD					
ENE 75		75.00				
	0.350					0.350
	0.390					0.390
AVE						0.370
STD.						0.028
Freq.						2.703
NS 2-5		5.00				
	0.220					0.220
	0.500	2.00				0.500
AVE						0.360
STD.						0.198
Freq.						2.778
EW 282		282.00				
	0.010					0.010
	0.015					0.015
	.015					.015
	0.020					0.020
	0.030					0.030
	0.020					0.020
AVE						0.019
STD.						0.007
Freq.						52.632
RDJ 25 8-16-00 Highland Creek	QD					
NS 5-12		12.00				
	3.51	5.00				3.51
AVE						3.510
STD.						
Freq.						0.285

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-Average hemi)	Strike	Angle b/t SL and fract. Radians	True Spacing (m)
ENE 74-76	0.36	76.00					0.36
	0.47	74.00					0.47
	0.25	75.00					0.25
	0.1	75.00					0.1
	0.255						0.255
AVE							0.287
STD.							0.138
Freq.							3.484
NNW 335-340	1.025	335.00					1.025
	0.06	335.00					0.06
	0.24						0.24
	1						1
	.07	340.00					.07
	.06						.06
	.05						.05
	.07						.07
	.07						.07
AVE							0.581
STD.							0.503
Freq.							1.720
8-16-00-RDJ26 Highland Rd Creek Qd							
NNW 330-345	1.85	330-333					1.85
	0.97	338.00					0.97
		345.00					
AVE							1.410
STD.							0.622
Freq.							0.709
ENE 73-85	1.32	85.00					1.32
	1.04	73.00					1.04
AVE							1.180
STD.							0.198
Freq.							0.847
RDJ 27 Highland rd QD							
ENE 72-76	0.13	74.00					0.13
	0.215	72.00					0.215
		76.00					
AVE							0.173
STD.							0.060
Freq.							5.797
RDJ 29 Highland rd Creek 8-16-00 QD							
NS 5-10	0.12	10.00					0.12
	3.07	5.00					3.07
		9.00					
AVE							1.595
STD.							2.086
Freq.							0.627
ENE 71-76	0.51	77.00					0.51
	0.4	71.00					0.4
	0.06	75.00					0.06
	0.94	77.00					0.94
		76.00					
AVE							0.478
STD.							0.363
Freq.							2.094
RDJ 30a 8-16-00							

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
Highland rd Creek SL	SL Orient=	206.00						
EW		0.62	82.00		262			
78-82		0.76	80.00	0.14	260	261.00	54.00	0.94
		0.97	79.00	0.21	259	259.50	53.00	0.93
		1.04	79.00	0.07	259	259.00	53.00	0.93
		1.54	79.00	0.50	259	259.00	53.00	0.93
		2.51	80.00	0.98	260	259.50	54.00	0.94
		2.73	80.00	0.22	260	260.00	54.00	0.94
		2.83	82.00	0.10	262	261.00	56.00	0.98
		3.11	79.00	0.28	259	260.50	53.00	0.93
		3.54	81.00	0.43	261	260.00	55.00	0.96
		4.09	78.00	0.55	258	259.50	52.00	0.91
		4.15	80.00	0.05	260	259.00	54.00	0.94
		4.48	80.00	0.34	260	260.00	54.00	0.94
		4.78	80.00	0.30	260	260.00	54.00	0.94
		4.91	80.00	0.13	260	260.00	54.00	0.94
		5.15	81.00	0.24	261	260.50	55.00	0.96
		5.22	79.00	0.07	259	260.00	53.00	0.93
		5.92	79.00	0.70	259	259.00	53.00	0.93
		6.05	80.00	0.13	260	259.50	54.00	0.94
		6.26	79.00	0.21	259	259.50	53.00	0.93
		6.45	80.00	0.19	260	259.50	54.00	0.94
		6.72	80.00	0.27	260	260.00	54.00	0.94
		7.21	80.00	0.49	260	260.00	54.00	0.94
		7.42	80.00	0.21	260	260.00	54.00	0.94
		8.18	80.00	0.76	260	260.00	54.00	0.94
		8.50	81.00	0.32	261	260.50	55.00	0.96
		9.92	83.00	1.42	263	262.00	57.00	0.99
		10.05	82.00	0.13	262	262.50	56.00	0.98
		11.30	80.00	1.25	260	261.00	54.00	0.94
		12.17	82.00	0.87	262	261.00	56.00	0.98
		12.28	80.00	0.11	260	261.00	54.00	0.94
		12.98	82.00	0.70	262	261.00	56.00	0.98
		13.16	80.00	0.18	260	261.00	54.00	0.94
		13.72	80.00	0.56	260	260.00	54.00	0.94
		15	80.00	1.28	260	260.00	54.00	0.94
	AVE							0.344
	STD.							0.305
	Freq.							2.909
NS		14.15	15.00					
NW		2.48	332.00		152			
327-332		11.55	327.00	11.55	147	149.50	59.00	1.03
		13.15	330.00	1.60	150	148.50	56.00	0.98
	AVE							5.613
	STD.							6.063
	Freq.							0.178
NNW		0.66	350.00		170			
336-350		0.84	345.00	0.18	165	167.50	41.00	0.72
		2.12	343.00	1.28	163	164.00	43.00	0.75
	AVE							0.496
	STD.							0.534
	Freq.							2.018
ENE		14.30	65.00					
8-16-00-RDJ 31 Highland Rd Creek	QD							
NS			7.50					
355-8		1.48	8.00					1.48
		1.27	3.00					1.27
		0.33	355.00					0.33
	AVE							1.027
	STD.							0.612
	Freq.							0.974
EW		.1	79.00					.1

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	0.13							0.13
	0.23							0.23
	0.11							0.11
	0.15							0.15
	0.11							0.11
	0.59							0.59
AVE								0.219
STD.								0.187
Freq.								4.570

8-17-00-RDJ32										
Tommy Creek		SL								
		Orient. =	210							
NNW		19.8	345.00		165.00		45.00	0.79	0.00	
326-345		25.9	326.00	6.10	146.00	155.50	64.00	1.12	5.48	
		AVE								2.741
		STD.								3.877
		Freq.								0.365
EW		21.3	88.00							
NE		17.6	46.00							
NS		14.22	4.00		184.00		26.00	0.45		
4-12		23.13	4.00	8.91	184.00	184.00	26.00	0.45	3.91	
		25.87	12.00	2.74	192.00	188.00	18.00	0.31	0.85	
		AVE								2.376
		STD.								2.163
		Freq.								0.421

8-16-00-RDJ33								
Tommy Creek	SL Orient. =	113.00	293.00					
ENE	-0.47	68.00		248.00		45.00	0.79	
68-74	0	76.00	0.47	256.00	252.00	37.00	0.65	0.28
	0.3	76.00	0.30	256.00	256.00	37.00	0.65	0.18
	0.425	75.00	0.13	255.00	255.50	38.00	0.66	0.08
	0.63	74.00	0.21	254.00	254.50	39.00	0.68	0.13
	1.02	76.00	0.39	256.00	255.00	37.00	0.65	0.23
	1.14	72.00	0.12	252.00	254.00	41.00	0.72	0.08
	2.81	79.00	1.67	259.00	255.50	34.00	0.59	0.93
	4.56	74.00	1.75	254.00	256.50	39.00	0.68	1.10
	5.27	71.00	0.71	251.00	252.50	42.00	0.73	0.48
	5.955	75.00	0.69	255.00	253.00	38.00	0.66	0.42
	7.03	78.00	1.08	258.00	256.50	35.00	0.61	0.62
	7.34	75.00	0.31	255.00	256.50	38.00	0.66	0.19
	7.64	74.00	0.30	254.00	254.50	39.00	0.68	0.19
	8.38	75.00	0.74	255.00	254.50	38.00	0.66	0.46
	9.2	72.00	0.82	252.00	253.50	41.00	0.72	0.54
	9.5	74.00	0.30	254.00	253.00	39.00	0.68	0.19
AVE								0.363
STD.								0.247
Freq.								2.752
NS	From 0.0m backward.							
348-9	-0.52	2.00		182.00	182.00	69.00	1.20	0.00
	-1.37	9.00	0.85	189.00	185.50	76.00	1.33	0.82
	0.88	354.00	2.25	174.00	181.50	61.00	1.06	1.97
	1.25	6.00	0.37	186.00	180.00	73.00	1.27	0.35
	1.55	354.00	0.30	174.00	180.00	61.00	1.06	0.26
	2.52	348.00	0.97	168.00	171.00	55.00	0.96	0.79
	2.55	0.00	0.03	180.00	174.00	67.00	1.17	0.03
	2.61	5.00	0.06	185.00	182.50	72.00	1.26	0.06
	2.68	4.00	0.07	184.00	184.50	71.00	1.24	0.07
	2.88	8.00	0.20	188.00	186.00	75.00	1.31	0.19
	3.05	5.00	0.17	185.00	186.50	72.00	1.26	0.16
	3.79	355.00	0.74	175.00	180.00	62.00	1.08	0.65
	4.6	357.00	0.81	177.00	176.00	64.00	1.12	0.73

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	4.88	10.00	0.28	190.00	183.50	77.00	1.34	0.27
	6.94	357.00	2.06	177.00	183.50	64.00	1.12	1.85
	7.5	2.00	0.56	182.00	179.50	69.00	1.20	0.52
	7.9	3.00	0.40	183.00	182.50	70.00	1.22	0.38
	8.66	7.50	0.76	187.50	185.25	74.50	1.30	0.73
	9.05	4.00	0.39	184.00	185.75	71.00	1.24	0.37
	9.45	3.00	0.40	183.00	183.50	70.00	1.22	0.38
	10.44	0.00	0.99	180.00	181.50	67.00	1.17	0.91
	10.67	6.00	0.23	186.00	183.00	73.00	1.27	0.22
	10.81	5.00	0.14	185.00	185.50	72.00	1.26	0.13
	11.16	0.00	0.35	180.00	182.50	67.00	1.17	0.32
	AVE							0.507
	STD.							0.509
	Freq.							1.971
NW	1.36	314.00						

8-17-00-RDJ34								
Tommy Creek	SL Oreint.=	100						
ENE	0.63	72.00		252.00		28.00	0.49	0.00
59-73	2.38	62.00	1.75	242.00	247.00	38.00	0.66	1.08
	3.1	59.00	0.72	239.00	240.50	41.00	0.72	0.47
	4.72	60.00	1.62	240.00	239.50	40.00	0.70	1.04
	6.24	73.00	1.52	253.00	246.50	27.00	0.47	0.69
	8.47	70.00	2.23	250.00	251.50	30.00	0.52	1.12
	9.97	68.00	1.50	248.00	249.00	32.00	0.56	0.79
	11.05	71.00	1.08	251.00	249.50	29.00	0.51	0.52
	12.63	60.00	1.58	240.00	245.50	40.00	0.70	1.02
	AVE							0.748
	STD.							0.369
	Freq.							1.337
NE	0.97	50.00		230.00		50.00	0.87	0.00
47-50	5.93	47.00	4.96	227.00	228.50	53.00	0.93	3.96
	14.2	50.00	8.27	230.00	228.50	50.00	0.87	6.34
	AVE							3.432
	STD.							3.201
	Freq.							0.291
NNE	14.4	33.00						
NS	5.01	356.00		176.00	176.00	76.00	1.33	
345-12	6.58	350.00	1.57	170.00	173.00	70.00	1.22	1.48
	6.72	350.00	0.14	170.00	170.00	70.00	1.22	0.13
	7.15	356.00	0.43	176.00	173.00	76.00	1.33	0.42
	7.22	358.00	0.07	178.00	177.00	78.00	1.36	0.07
	7.9	350.00	0.68	170.00	177.18	70.00	1.22	0.64
	8.15	348.00	0.25	168.00	178.10	68.00	1.19	0.23
	8.5	12.00	0.35	192.00	176.56	88.00	1.54	0.35
	9.7	348.00	1.20	168.00	177.63	68.00	1.19	1.11
	11.03	350.00	1.33	170.00	178.71	70.00	1.22	1.25
	11.62	350.00	0.59	170.00	180.17	70.00	1.22	0.55
	12.15	4.00	0.53	184.00	179.40	84.00	1.47	0.53
	12.32	5.00	0.17	185.00	178.00	85.00	1.48	0.17
	13.62	5.00	1.30	185.00	175.67	85.00	1.48	1.30
	14.46	4.00	0.84	184.00	171.50	84.00	1.47	0.84
	14.56	358.00	0.10	178.00	165.00	78.00	1.36	0.10
	14.68	345.00	0.12	165.00	176.69	65.00	1.13	0.11
	AVE							0.579
	STD.							0.476
	Freq.							1.727
NW	3.59	321.00						
NNW	4	336.00		156.00		56.00	0.98	0.00
330-341	4.27	333.00	0.27	153.00	154.50	53.00	0.93	0.22
	4.48	335.00	0.21	155.00	154.00	55.00	0.96	0.17
	5.095	341.00	0.61	161.00	158.00	61.00	1.06	0.54
	6.18	335.00	1.09	155.00	158.00	55.00	0.96	0.89
	6.34	339.00	0.16	159.00	157.00	59.00	1.03	0.14

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	7.43	330.00	1.09	150.00	158.33	50.00	0.87	0.83
	7.695	340.00	0.27	160.00	157.50	60.00	1.05	0.23
	10.12	335.00	2.43	155.00	160.00	55.00	0.96	1.99
	12.88	340.00	2.76	160.00	156.80	60.00	1.05	2.39
AVE								0.701
STD.								0.730
Freq.								1.426

8-17-00-RDJ38								
Tommy Creek	SL Orient.=	210						
ENE	0.25	76.00	0.25	256	256.00	46.00	0.80	0.18
75-79	0.05	76.00	-0.20	256	256.00	46.00	0.80	0.14
	0.59	76.00	0.54	256	256.00	46.00	0.80	0.39
	0.78	76.00	0.19	256	256.00	46.00	0.80	0.14
	0.28	76.00	-0.50	256	256.00	46.00	0.80	0.36
	1.53	76.00	1.25	256	256.00	46.00	0.80	0.90
	2.98	75.00	1.45	255	255.50	45.00	0.79	1.03
	3.49	75.00	0.51	255	255.00	45.00	0.79	0.36
	4.41	75.00	0.92	255	255.00	45.00	0.79	0.65
	4.67	75.00	0.26	255	255.00	45.00	0.79	0.18
	4.7	75.00	0.03	255	255.00	45.00	0.79	0.02
	4.91	75.00	0.21	255	255.00	45.00	0.79	0.15
	5.46	76.00	0.55	256	255.50	46.00	0.80	0.40
	5.98	76.00	0.52	256	256.00	46.00	0.80	0.37
	6.1	76.00	0.12	256	256.00	46.00	0.80	0.09
	6.55	76.00	0.45	256	256.00	46.00	0.80	0.32
	7.57	76.00	1.02	256	256.00	46.00	0.80	0.73
	7.84	76.00	0.27	256	256.00	46.00	0.80	0.19
	7.88	76.00	0.04	256	256.00	46.00	0.80	0.03
	8.14	76.00	0.26	256	256.00	46.00	0.80	0.19
	8.3	76.00	0.16	256	256.00	46.00	0.80	0.12
	8.32	76.00	0.02	256	256.00	46.00	0.80	0.01
	8.69	79.00	0.37	259	257.50	49.00	0.86	0.28
	9.05	79.00	0.36	259	259.00	49.00	0.86	0.27
	9.11	79.00	0.06	259	259.00	49.00	0.86	0.05
	9.55	76.00	0.44	256	257.50	46.00	0.80	0.32
	9.94	75.00	0.39	255	255.50	45.00	0.79	0.28
	10.5	75.00	0.56	255	255.00	45.00	0.79	0.40
	11.44	75.00	0.94	255	255.00	45.00	0.79	0.66
	11.52	75.00	0.08	255	255.00	45.00	0.79	0.06
	12.67	75.00	1.15	255	255.00	45.00	0.79	0.81
AVE								0.325
STD.								0.269
Freq.								3.079
NS	9.3	14.00		194	194.00	16.00	0.28	0.00
10-14	9.8	10.00	0.50	190	192.00	20.00	0.35	0.17
	12.84	10.00	3.04	190	190.00	20.00	0.35	1.04
AVE								0.404
STD.								0.558
Freq.								2.478

8-17-00-RDJ39								
Tommy Creek	QD							
ENE	0.29	75.00						0.29
75-76	0.26	75.00						0.26
	0.21	76.00						0.21
	0.09	76.00						0.09
	0.19	76.00						0.19
	0.17	76.00						0.17
	0.02	76.00						0.02
	0.12	76.00						0.12
	0.14	76.00						0.14
	0.09	76.00						0.09
	0.17	76.00						0.17
	0.25	76.00						0.25
	0.38	76.00						0.38
	0.16	76.00						0.16
	0.19	76.00						0.19
	0.18	76.00						0.18

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract. Radians	True Spacing (m)
	0.18	76.00				0.18
	0.35	76.00				0.35
	0.07	76.00				0.07
	0.31	76.00				0.31
	AVE					0.191
	STD.					0.094
	Freq.					5.236
NS		0.00				
0-5	8.47	5.00				8.47
	AVE					8.470
	STD.					
	Freq.					0.118
8-17-00-RDJ37 Tommy Creek QD						
ENE	0.23	77.00				0.23
77	0.12	77.00				0.12
	0.135	77.00				0.135
	0.18	77.00				0.18
	AVE					0.166
	STD.					0.050
	Freq.					6.015
NS	0.05	15.00				0.05
5-15	0.1	5.00				0.1
	0.17	10.00				0.17
	0.785	10.00				0.785
	0.13	10.00				0.13
	1.6	10.00				1.6
	AVE					0.473
	STD.					0.616
	Freq.					2.116
NW	0.1	318.00				
NNE	0.55	20.00				0.55
20	0.41	20.00				0.41
	0.14	20.00				0.14
	AVE					0.367
	STD.					0.208
	Freq.					2.727
8-17-00-RDJ40 Tommy Creek QD						
NS		7.00				
5-7	4.83	5.00				4.83
	AVE					4.830
	STD.					
	Freq.					0.207
ENE		75.00				
75	0.92	75.00				0.92
	0.99	75.00				0.99
	0.78	75.00				0.78
	0.375	75.00				0.375
	0.99	75.00				0.99
	0.26	75.00				0.26
	0.3	75.00				0.3
	0.39	75.00				0.39
	1.16	75.00				1.16
	AVE					0.685
	STD.					0.351
	Freq.					1.460
NNW		337.00				
335, 337	0.54	335.00				0.54
	0.66	337.00				0.66
	AVE					0.600
	STD.					0.085

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract. Radians	True Spacing (m)
Freq.						1.667
8-17-00-RDJ41 Tommy Creek QD						
NNW	3	332.00				3
332-335	2.85	332.00				2.85
	1	332.00				1
	1.2	332.00				1.2
	1.75	332.00				1.75
	1.5	335.00				1.5
	1.9	335.00				1.9
AVE						1.886
STD.						0.774
Freq.						0.530
ENE	0.11	73.00				0.11
73	0.12	73.00				0.12
	0.33	73.00				0.33
	0.71	73.00				0.71
	0.07	73.00				0.07
	0.72	73.00				0.72
	0.31	73.00				0.31
AVE						0.339
STD.						0.276
Freq.						2.954
NS	0.82	5.00				0.82
5-10	1.27	10.00				1.27
AVE						1.045
STD.						0.318
Freq.						0.957
8-17-00-RDJ42 Tommy Creek QD						
NS		2.00				
NNW		328.00				
328-331	3.2	331.00				3.2
	1.47	331.00				1.47
	1.53	331.00				1.53
	2.25	331.00				2.25
	0.73	331.00				0.73
	0.54	331.00				0.54
AVE						1.620
STD.						0.988
Freq.						0.617
ENE		75.00				
75-76	0.57	75.00				0.57
	0.12	75.00				0.12
	0.63	75.00				0.63
	1.74	75.00				1.74
	0.16	75.00				0.16
	0.62	75.00				0.62
	0.38	76.00				0.38
	0.43	76.00				0.43
	1.01	76.00				1.01
	0.8	76.00				0.8
	0.26	76.00				0.26
	0.12	76.00				0.12
	1.42	76.00				1.42
AVE						0.635
STD.						0.501
Freq.						1.574
8-17-00-RDJ43 Tommy Creek						
A Set		327				

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract. Radians	True Spacing (m)
B Set		5				
8-17-00-RDJ44 Tommy Creek QD						
NS	A Set	9				
NNW 327-333	B set	329 327 333				
8-17-00-RDJ45 Tommy Creek QD						
ENE 76		76.00 0.56 0.28 0.16 0.23 0.07 0.2 0.42 covered 0.8 0.48 1.4 0.31 0.33 0.07 0.48 0.3 0.36 0.25 0.29 0.1 0.17 0.15 0.17 0.31 0.31 0.38 0.05 0.12 0.06				0.56 0.28 0.16 0.23 0.07 0.2 0.42 covered 0.8 0.48 1.4 0.31 0.33 0.07 0.48 0.3 0.36 0.25 0.29 0.1 0.17 0.15 0.17 0.31 0.31 0.38 0.05 0.12 0.06
	AVE					0.315
	STD.					0.272
	Freq.					3.178
8-17-00 RDJ46 Tommy Creek QD						
NS		10.00				
NNW 330-337		335.00 0.1 0.1 0.11 0.08 0.08 0.1 0.17 1 1.13 0.73 0.46				0.1 0.1 0.11 0.08 0.08 0.1 0.17 1 1.13 0.73 0.46
	AVE					0.369
	STD.					0.401
	Freq.					2.709
8-17-00-RDJ47						

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract. Radians	True Spacing (m)
Tommy Creek						
NS	0.32	11.00				0.32
	0.22	11.00				0.22
	0.8	11.00				0.8
	0.51	11.00				0.51
	0.08	11.00				0.08
	0.14	11.00				0.14
	0.83	11.00				0.83
	1.42	11.00				1.42
	1.35	11.00				1.35
	1.08	11.00				1.08
AVE						0.675
STD.						0.496
Freq.						1.481
NNW 333	0.41	333.00				0.41
	0.52	333.00				0.52
	1.2	333.00				1.2
AVE						0.710
STD.						0.428
Freq.						1.408
ENE 68	0.77	68.00				0.77
	0.81	68.00				0.81
	0.38	68.00				0.38
	0.45	68.00				0.45
AVE						0.603
STD.						0.219
Freq.						1.660
8-17-00-RDJ47a						
Tommy Creek			QD			
ENE 75	0.42	75.00				0.42
	0.05	75.00				0.05
	0.065	75.00				0.065
	0.14	75.00				0.14
	0.41	75.00				0.41
	0.015	75.00				0.015
	0.21	75.00				0.21
	0.055	75.00				0.055
	0.12	75.00				0.12
	0.19	75.00				0.19
	0.39	75.00				0.39
	0.085	75.00				0.085
	0.35	75.00				0.35
	0.055	75.00				0.055
	0.035	75.00				0.035
	0.05	75.00				0.05
	0.175	75.00				0.175
	0.045	75.00				0.045
	0.015	75.00				0.015
	0.24	75.00				0.24
NS 10	0.32	10.00				0.32
	1.8	10.00				1.8
	0.035	10.00				0.035
	0.105	10.00				0.105
	0.11	10.00				0.11
AVE						0.474
STD.						0.749
Freq.						2.110

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract. Radians	True Spacing (m)
8-17-00-RDJ47b Tommy Creek QD						
ENE	0.44	72.00				0.44
72	0.28	72.00				0.28
	0.59	72.00				0.59
	0.5	72.00				0.5
	0.39	72.00				0.39
	0.12	72.00				0.12
	0.09	72.00				0.09
	0.28	72.00				0.28
	AVE					0.336
	STD.					0.177
	Freq.					2.974
RDJ 48 Tommy Creek QD						
ENE		77.00				
75-77	0.075	77.00				0.075
	0.11	77.00				0.11
	0.26	77.00				0.26
	0.64	77.00				0.64
	0.29	77.00				0.29
	0.15	77.00				0.15
	0.13	77.00				0.13
	0.3	77.00				0.3
	0.475	77.00				0.475
	0.93	77.00				0.93
	0.09	77.00				0.09
	0.58	75.00				0.58
	0.11	75.00				0.11
	0.34	75.00				0.34
	0.09	75.00				0.09
	0.85	75.00				0.85
	0.65	75.00				0.65
	0.02	75.00				0.02
	0.045	75.00				0.045
	0.13	75.00				0.13
	AVE					0.313
	STD.					0.279
	Freq.					3.192
NS						
1	7.1	8.00				7.1
	AVE					7.100
	STD.					0.141
	Freq.					
8-18-00-RDJ49 Camp Babcock Hovey QD						
ENE		74.00				
73-74	0.15	74.00				0.15
	1.3	74.00				1.3
	1.1	74.00				1.1
	1.31	74.00				1.31
	0.45	74.00				0.45
	0.48	73.00				0.48
	0.94	73.00				0.94
	AVE					0.819
	STD.					0.459
	Freq.					1.222
NS						
350	0.63	350.00				0.63
	1.69	350.00				1.69
	.74	350.00				.74
	AVE					1.160
	STD.					0.750
	Freq.					0.862

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-Average hemi)	Strike	Angle b/t SL and fract. Radians	True Spacing (m)
8-18-00-RDJ50							
Camp Babcock Hovey	SL =	355	175				
	NS	0.16	3				
	NNE	2.92	19				
	NNW	1.4	347	1.40	181.40	6.40	0.11
	335-347	2.96	335	1.56	182.96	182.18	7.96
	AVE						1.560
	STD.						
	Freq.						0.641
	EW	0.5	85	0.50	265.00	90.00	1.57
	71-275	2.43	275	1.93	95.00	180.00	1.40
		4.84	71	2.41	251.00	173.00	1.33
	AVE						2.120
	STD.						0.310
	Freq.						0.472
10-17-00-RDJ 51							
Camp Babcock Hovey	QD						
	NNW		324.00				
	324-330	0.15	330.00				0.15
		0.35	330.00				0.35
	AVE						0.250
	STD.						0.141
	Freq.						4.000
	NE	0.6	40.00				0.6
	40	0.08	40.00				0.08
		0.6	40.00				0.6
	AVE						0.427
	STD.						0.300
	Freq.						2.344
10-17-00-RDJ52							
	QD						
	NNW		337.00				
	332-337	1.69	335.00				1.69
		0.11	335.00				0.11
		0.06	332.00				0.06
		1.24	335.00				1.24
	AVE						0.470
	STD.						0.667
	Freq.						2.128
	ENE		75.00				
	72-77	0.13	74.00				0.13
		0.64	77.00				0.64
		0.22	75.00				0.22
		0.185	72.00				0.185
		0.69	74.00				0.69
		0.06	75.00				0.06
	AVE						0.321
	STD.						0.272
	Freq.						3.117
10-17-00-RDJ53							
peanut's	QD						
	NS	0	350.00				0
	340-2	0.07	352.00				0.07
		0.07	353.00				0.07
		0.14	340.00				0.14
		0.17	2.00				0.17
		0.37	335.00				0.37
		0.75	344.00				0.75
		0.37	340.00				0.37
		0.13	350.00				0.13

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract. Radians	True Spacing (m)
	0.8	342.00				0.8
						0.287
						0.284
						3.484
ENE	0	82.00				0
67-82	0.4	84.00				0.4
	0	78.00				0
	0.6	67.00				0.6
	0.04	72.00				0.04
	0.05	75.00				0.05
	0	67.00				0
	0.45	82.00				0.45
						0.193
						0.248
						5.195
10-17-00 RDJ 54						
QD						
NNW	0	325.00				0
325-330	0.14	330.00				0.14
	0.47	325.00				0.47
	0.61	326.00				0.61
						0.305
						0.283
						3.279
ENE	0	70.00				0
68-70	0.9	70.00				0.9
	1.5	68.00				1.5
						0.800
						0.755
						1.250
NS		350.00				
NW		300.00				
10-17-00-RDJ55						
QD						
NS	0.03	355.00				0.03
352-355	0.15	352.00				0.15
						0.090
						0.085
						11.111
ENE	0.26	65.00				0.26
65	0.51					0.51
						0.385
						0.177
						2.597
NW	0.65	325.00				0.65
						0.650
						1.538
10-18-00-RDJ56						
Pitcher rd.						
QD						
NW-NNW	0	335.00				0
320-340	0.77	325.00				0.77
	0.15	320.00				0.15
	0.15	320.00				0.15
	0.56	332.00				0.56
	0.62	340.00				0.62
						0.375
						0.314
						2.667
NS	0.65	358.00				0.65

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract. Radians	True Spacing (m)
358	2.4	358.00				2.4
		AVE				1.525
		STD.				1.237
		Freq.				0.656

10-18-00-RDJ57 Pitcher rd. QD						
NS	0	358.00				0
356-4	0.21	0.00				0.21
	0.055	359.00				0.055
	0.06	4.00				0.06
	0.11	359.00				0.11
	0.36	359.00				0.36
	0.02	357.00				0.02
	0.06	356.00				0.06
	0.16	0.00				0.16
	0.16	358.00				0.16
		AVE				0.120
		STD.				0.108
		Freq.				8.368
ENE	0	70.00				0
64-82	0.08	80.00				0.08
	0.08	78.00				0.08
	0.04	81.50				0.04
	0.3	64.00				0.3
		AVE				0.100
		STD.				0.117
		Freq.				10.000
NW-NNW	0	330.00				0
	0.03	324.50				0.03
		AVE				0.015
		STD.				0.021
		Freq.				66.667

10-18-00-RDJ58 Klondike QD						
NNW		327.00				
327-335	0.41	335.00				0.41
	0.66	335.00				0.66
	0.4	332.00				0.4
	0.09	327.00				0.09
	0.3	330.00				0.3
		AVE				0.372
		STD.				0.206
		Freq.				2.688
ENE		74.00				
60-74	0.95	72.00				0.95
	0.44	70.00				0.44
	0.51	62.00				0.51
	0.15	60.00				0.15
	1.14	70.00				1.14
		AVE				0.638
		STD.				0.401
		Freq.				1.567

RDJ 59 10-18-00 QD Klondike poor notes for site						
N-S	1	5				
5-15	4	5				
	5	9				
	6	0.06	15			0.06
	7	0.05	12			0.05
	8	0.11	15			0.11

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract. Radians	True Spacing (m)
	9	0.75	15				0.75
	10	0.11	8				0.11
	AVE						0.216
	STD.						0.300
	Freq.						4.630
EW	2		277				
87-277	3	0.93	87				
			90				
NNE	11	2+	22				2
	AVE						2.000
	STD.						0.500
	Freq.						
NNW		6+	330				6
	AVE						6.000
	STD.						
	Freq.						0.167
10-18-00-RDJ60 Camp Bavcock Hovey QD							
NE-ENE			68.00				
55-78		0.66	75.00				0.66
		1.11	55.00				1.11
		1.11	76.00				1.11
		0.66	78.00				0.66
	AVE						0.885
	STD.						0.260
	Freq.						1.130
10-18-00-RDJ61 Camp Bavcock Hovey QD							
ENE		0	73.00				
NNW		0	342.00				
10-18-00-RDJ 63 Camp Bavcock Hovey QD							
ENE		0.02	80.00				0.02
		0.07	65.00				0.07
		0.11	71.00				0.11
		0.05	75.00				0.05
		0.43	60.00				0.43
		0.04					0.04
	AVE						0.120
	STD.						0.155
	Freq.						8.333
10-18-00-RDJ62 Camp Bavcock Hovey							
NE-ENE-EW		0	89.00				0
49-90		0.46	70.00				0.46
		0.52	96.00				0.52
		0.67	49.00				0.67
		0.67	90.00				0.67
		0.24	66.00				0.24
		0.42	89.00				0.42
	AVE						0.426
	STD.						0.240
	Freq.						2.349
10-20-00-RDJ 78 Campmeeting QD							
NNW		0	333				0
333-340		1	334				1

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-Average hemi)	Average Strike	Angle b/t SL and fract. Radians	True Spacing (m)
	1.02	333					1.02
	0	340					0
	1.3	340					1.3
	2	340					2
	1.3	337					1.3
	1.6	337					1.6
	2	340					2
							1.317
							0.688
							0.759
ENE	0	70					0
70-71	1.5	71					1.5
							0.750
							1.061
							1.333

DUNDEE

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
7-12-00-8		A end		B end					
	SL Valios Orient. =	255.00	75.00	278.00	98.00				
NNW 330-342	a1	0.36	330		150		75.00	1.31	
	a7	2.48	339	2.12	159	159.00	84.00	1.47	2.11
	a9	3.7	332	1.22	152	152.00	77.00	1.34	1.19
	a10	5.25	335	1.55	155	155.00	80.00	1.40	1.53
	a11	5.64	336	0.39	156	156.00	81.00	1.41	0.39
	a12	6.4	332	0.76	152	152.00	77.00	1.34	0.74
	a13	6.59	336	0.19	156	156.00	81.00	1.41	0.19
	a14	8.3	334	1.71	154	154.00	79.00	1.38	1.68
	b23	8.98	335	0.68	155	155.00	57.00	0.99	0.57
	b22	9.02	336.5	0.04	157	156.50	58.50	1.02	0.03
	b21	9.25	344	0.23	164	164.00	66.00	1.15	0.21
	b20	9.375	335	0.13	155	155.00	57.00	0.99	0.10
	b19	9.4	338	0.03	158	158.00	60.00	1.05	0.02
	b18	9.5	341	0.10	161	161.00	63.00	1.10	0.09
	b17	9.51	334	0.01	154	154.00	56.00	0.98	0.01
	b16	9.66	339	0.15	159	159.00	61.00	1.06	0.13
	b15	10.96	335	1.30	155	155.00	57.00	0.99	1.09
	b14	13.51	334	2.55	154	154.00	56.00	0.98	2.11
	b13	13.6	335	0.09	155	155.00	57.00	0.99	0.08
	b12	13.65	336	0.05	156	156.00	58.00	1.01	0.04
	b10	13.84	337	0.19	157	157.00	59.00	1.03	0.16
	b9	14.5	336	0.66	156	156.00	58.00	1.01	0.56
	b8	15.17	335	0.67	155	155.00	57.00	0.99	0.56
	b7	15.27	342	0.10	162	162.00	64.00	1.12	0.09
	b6	15.61	335	0.34	155	155.00	57.00	0.99	0.29
	b5	15.79	335	0.18	155	155.00	57.00	0.99	0.15
	b1	18.52	337	2.73	157	157.00	59.00	1.03	2.34
	AVE								0.63
	STD.								0.74
	Freq.								1.58
NNE 21-34	a2	1.7	30		210		45.00	0.79	
	a5	1.9	21	0.20	201	201.00	54.00	0.94	0.16
	b3	15.89	34	13.99	214	214.00	64.00	1.12	12.57
	AVE								6.37
	STD.								8.78
	Freq.								0.16
EW 87-276	a3	1.92	90		270		15.00	0.26	
	a4	2.03	276	0.11	96	96.00	21.00	0.37	0.04
	AVE								0.04
	STD.								
	Freq.								25.37
NS	a8		355						
ENE 65,70	b4	offline	65						
	b11	offline	70						
7-12-00-9									
Creek N. of San Feliz Hotel	SL Orient. =	289							
ENE 67-81		0	67	0.00	247		8.00	0.14	
		0.77	76	0.77	256	256.00	1.00	0.02	0.01
		1.13	80	0.36	260	260.00	5.00	0.09	0.03

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	1.29	81	0.16	261	261.00	6.00	0.10	0.02
	4.81	76	3.52	256	256.00	1.00	0.02	0.06
AVE								0.03
STD.								0.02
Freq.								32.53
NNE	1.83	22		202		53.00	0.93	
16-22	2.39	16	0.56	196	196.00	59.00	1.03	0.48
	3.3	17	0.91	197	197.00	58.00	1.01	0.77
AVE								0.63
STD.								0.21
Freq.								1.60
EW	0	90		270		90.00	1.57	
90-293	3.9	293	3.90	113	113.00	4.00	0.07	0.27
	4.15	90	0.25	270	270.00	90.00	1.57	0.25
	6.67	271	2.52	91	91.00	18.00	0.31	0.78
AVE								0.43
STD.								0.30
Freq.								2.31

7-12-00-10b								
Break neck	SL							
Creek	Orient. =	287.00	107.00	IN Sands				
NS		0.94	3.5		184		76.50	1.34
350-12	A12	1.97	5	1.97	185	185.00	78.00	1.93
		1.98	3	1.04	183	183.00	76.00	1.01
	A18	2.6	3	0.63	183	183.00	76.00	0.61
		2.91	0	0.93	180	180.00	73.00	0.89
		4.28	12	1.68	192	192.00	85.00	1.67
	A25	4.78	350	1.87	170	170.00	63.00	1.10
		4.53	357	0.25	177	177.00	70.00	0.23
		4.94	350	0.16	170	170.00	63.00	0.14
		5.04	358	0.51	178	178.00	71.00	0.48
	A26	8.12	359	3.18	179	179.00	72.00	3.02
AVE								0.84
STD.								0.59
Freq.								1.19
NE		5.06	41		221		66.00	1.15
40-57		4.97	50	0.09	230	230.00	57.00	0.08
		4.83	46	0.14	226	226.00	61.00	0.12
		4.55	52	0.28	232	232.00	55.00	0.23
		4.61	52	0.06	232	232.00	55.00	0.05
		0	56	4.61	236	236.00	51.00	3.58
		0.12	56	0.12	236	236.00	51.00	0.09
		0.2	57	0.08	237	237.00	50.00	0.06
		0.31	54	0.11	234	234.00	53.00	0.09
		0.385	54.5	0.08	235	234.50	52.50	0.06
		0.48	53	0.10	233	233.00	54.00	0.08
		0.52	53	0.04	233	233.00	54.00	0.03
		0.58	53	0.06	233	233.00	54.00	0.05
		0.66	51.5	0.08	232	231.50	55.50	0.07
		0.77	53.5	0.11	234	233.50	53.50	0.09
		0.86	49	0.09	229	229.00	58.00	0.08
		0.88	55	0.02	235	235.00	52.00	0.02
		0.94	50	0.06	230	230.00	57.00	0.05
		1.01	52	0.07	232	232.00	55.00	0.06
		1.06	55	0.05	235	235.00	52.00	0.04
		1.14	52	0.08	232	232.00	55.00	0.07
		1.21	49	0.07	229	229.00	58.00	0.06

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
		1.91	52	0.70	232	232.00	55.00	0.96	0.57
		2.2	55	0.29	235	235.00	52.00	0.91	0.23
		2.26	50	0.06	230	230.00	57.00	0.99	0.05
		2.34	54	0.08	234	234.00	53.00	0.93	0.06
		2.48	54	0.14	234	234.00	53.00	0.93	0.11
		3.14	43	0.66	223	223.00	64.00	1.12	0.59
		3.16	40	0.02	220	220.00	67.00	1.17	0.02
	AVE								0.24
	STD.								0.67
	Freq.								4.19
54-77	A6	0	76		256		31.00	0.54	
ENE	A5	0.05	60	0.05	240	240.00	47.00	0.82	0.04
	A2	0.1	62	0.05	242	242.00	45.00	0.79	0.04
	A1	0.2	61	0.10	241	241.00	46.00	0.80	0.07
	A4	0.33	60	0.13	240	240.00	47.00	0.82	0.10
	A3	0.41	62	0.08	242	242.00	45.00	0.79	0.06
	A7	0.5	72	0.09	252	252.00	35.00	0.61	0.05
		0.75	70.5	2.95	251	250.50	36.50	0.64	1.75
		0.86	75	0.11	255	255.00	32.00	0.56	0.06
	A8	0.87	66	0.37	246	246.00	41.00	0.72	0.24
	A9	0.98	54	0.11	234	234.00	53.00	0.93	0.09
	A10	1.1	68	0.12	248	248.00	39.00	0.68	0.08
	A11	1.12	77	0.02	257	257.00	30.00	0.52	0.01
	A13	1.75	74	0.63	254	254.00	33.00	0.58	0.34
		1.8	60	0.94	240	240.00	47.00	0.82	0.69
		1.89	60	0.09	240	240.00	47.00	0.82	0.07
		1.95	61	0.06	241	241.00	46.00	0.80	0.04
		2.17	73	0.22	253	253.00	34.00	0.59	0.12
	A14	2.2	75	0.45	255	255.00	32.00	0.56	0.24
		2.39	72	0.22	252	252.00	35.00	0.61	0.13
	A19	2.66	56	0.46	236	236.00	51.00	0.89	0.36
	A17	3.3	68	0.64	248	248.00	39.00	0.68	0.40
	A16	3.35	80	0.05	260	260.00	27.00	0.47	0.02
		3.38	60	0.00	240	240.00	47.00	0.82	0.00
		3.38	62	0.99	242	242.00	45.00	0.79	0.70
		3.44	60	0.06	240	240.00	47.00	0.82	0.04
	A23	3.47	72	0.12	252	252.00	35.00	0.61	0.07
	A21	3.65	64	0.18	244	244.00	43.00	0.75	0.12
		3.7	62	0.07	242	242.00	45.00	0.79	0.05
		3.77	62	0.71	242	242.00	45.00	0.79	0.50
		4.48	65	0.07	245	245.00	42.00	0.73	0.05
		4.55	58	0.15	238	238.00	49.00	0.86	0.11
		4.7	62.5	0.10	243	242.50	44.50	0.78	0.07
		4.8	70	1.36	250	250.00	37.00	0.65	0.82
		5.5	74	0.70	254	254.00	33.00	0.58	0.38
	AVE								0.35
	STD.								0.34
	Freq.								2.89
NNW	b50	2.17	342.5	2.17	163	162.50	55.50	0.97	1.79
330-346	A15	2.49	341	2.49	161	161.00	54.00	0.94	2.01
	b18	2.74	346	0.57	166	166.00	59.00	1.03	0.49
	A22	3.95	341	1.46	161	161.00	54.00	0.94	1.18
	A24	4.4	344	1.66	164	164.00	57.00	0.99	1.39
	b14	4.4	345	0.45	165	165.00	58.00	1.01	0.38
	b8	4.42	330	0.02	150	150.00	43.00	0.75	0.01
	AVE								1.25
	STD.								1.08
	Freq.								0.80

7-13-00-12

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average heml)	Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
Ellison House Creek	SL Orient. =	90	270					
NNW-NS 330-4	0.28	350	0.28	170	170.00	80.00	1.40	0.28
	0.55	0	0.27	180	180.00	90.00	1.57	0.27
	1.6	1	1.05	181	181.00	91.00	1.59	1.05
	1.91	4	0.31	184	184.00	94.00	1.64	0.31
	2.12	2	0.21	182	182.00	92.00	1.61	0.21
	2.21	0	0.09	180	180.00	90.00	1.57	0.09
	2.4	1.5	0.19	182	181.50	91.50	1.60	0.19
	2.46	4	0.06	184	184.00	94.00	1.64	0.06
	2.55	3.5	0.09	184	183.50	93.50	1.63	0.09
	2.66	2	0.11	182	182.00	92.00	1.61	0.11
	2.71	3	0.05	183	183.00	93.00	1.62	0.05
	2.82	2	0.11	182	182.00	92.00	1.61	0.11
	2.86	358	0.04	178	178.00	88.00	1.54	0.04
	3.01	2	0.15	182	182.00	92.00	1.61	0.15
	3.06	359	0.05	179	179.00	89.00	1.55	0.05
	3.13	355	0.07	175	175.00	85.00	1.48	0.07
	3.16	350	0.03	170	170.00	80.00	1.40	0.03
	3.25	355	0.09	175	175.00	85.00	1.48	0.09
	3.48	350	0.23	170	170.00	80.00	1.40	0.23
	3.63	357.5	0.15	178	177.50	87.50	1.53	0.15
	3.69	350	0.06	170	170.00	80.00	1.40	0.06
	3.76	354	0.07	174	174.00	84.00	1.47	0.07
	4.13	355	0.37	175	175.00	85.00	1.48	0.37
	4.16	350	0.03	170	170.00	80.00	1.40	0.03
	4.22	353	0.06	173	173.00	83.00	1.45	0.06
	4.45	354	0.23	174	174.00	84.00	1.47	0.23
	4.45	340	0.00	160	160.00	70.00	1.22	0.00
	4.75	0	0.30	180	180.00	90.00	1.57	0.30
	5.07	0	0.32	180	180.00	90.00	1.57	0.32
	5.49	351	0.42	171	171.00	81.00	1.41	0.41
	13.49	355	8.00	175	175.00	85.00	1.48	7.97
	13.79	340	0.30	160	160.00	70.00	1.22	0.28
	14.11	350	0.32	170	170.00	80.00	1.40	0.32
	14.52	356	0.41	176	176.00	86.00	1.50	0.41
	14.606	0	0.09	180	180.00	90.00	1.57	0.09
	14.755	355	0.15	175	175.00	85.00	1.48	0.15
	15.175	355	0.42	175	175.00	85.00	1.48	0.42
	15.51	352	0.33	172	172.00	82.00	1.43	0.33
	15.78	355	0.27	175	175.00	85.00	1.48	0.27
	15.92	347	0.14	167	167.00	77.00	1.34	0.14
	15.965	355	0.04	175	175.00	85.00	1.48	0.04
	16.05	353	0.09	173	173.00	83.00	1.45	0.08
	16.12	357	0.07	177	177.00	87.00	1.52	0.07
	16.27	0	0.15	180	180.00	90.00	1.57	0.15
	16.56	355	0.29	175	175.00	85.00	1.48	0.29
	16.745	355	0.19	175	175.00	85.00	1.48	0.18
	16.94	356	0.20	176	176.00	86.00	1.50	0.19
	17.06	0	0.12	180	180.00	90.00	1.57	0.12
	17.15	356	0.09	176	176.00	86.00	1.50	0.09
AVE								0.35
STD.								1.12
Freq.								2.87
NNW	1.12	330						
ENE	4.34	70		250		20.00	0.35	
62,70	1.17	62	3.17	242	242.00	28.00	0.49	1.49
AVE								1.49
STD.								

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- hemi)	Average Strike	Angle b/t SL and fract. Radians	True Spacing (m)
Freq.							0.67
7-13-00-13 ellison hse QD							
NS		354					
350-4	0.16	350					0.16
	0.07	355					0.07
	0.04	358					0.04
	0.04	358					0.04
	0.2	358					0.2
	0.16	10					0.16
	0.06	0					0.06
	0.07	0					0.07
	0.05	355					0.05
	0.2	355					0.2
	0.29	0					0.29
	0.67	4					0.67
AVE							0.17
STD.							0.18
Freq.							5.97
7-13-00-14 Camp Meeting Point QD							
NNW		340					
334-345	0.37	334					0.37
	0.345	336					0.345
	0.67	334					0.67
	0.7	334					0.7
	1.23	336					1.23
	1	345					1
AVE							0.72
STD.							0.35
Freq.							1.39
7-18-00-20 Fake Caywood SL 285 105							
NNW	0.3	325		145		40.00	0.70
325-337	0.49	330	0.19	150	150.00	45.00	0.13
	0.55	332	0.06	152	152.00	47.00	0.04
	0.6	332	0.05	152	152.00	47.00	0.04
	2.47	334	1.87	154	154.00	49.00	1.41
	3.7	332	1.23	152	152.00	47.00	0.90
	3.08	337	0.62	157	157.00	52.00	0.49
AVE							0.50
STD.							0.56
Freq.							1.99
ENE	1.6	74		254		16.00	0.28
74,76	3.18	76	1.58	256	256.00	14.00	0.38
AVE							0.38
STD.							
Freq.							2.62
NS	1.81	9		189		81.00	1.41
9,10		10	1.81	190	190.00	80.00	1.78
AVE							1.78

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract. Radians	True Spacing (m)
STD. Freq.						0.56
Site 21 7-18-00-21 FID						
Fake Caywood QD						
EW 75-285	0.14	79				0.14
	0.34	79				0.34
	0.14	80				0.14
	0.57	79.5				0.57
	0.54	81				0.54
	0.62	80				0.62
	0.43	275				0.43
	0.45	275				0.45
	0.33	285				0.33
	0.44	75				0.44
	0.22	76				0.22
	0.04	75				0.04
	0.56	76				0.56
AVE						0.37
STD.						0.19
Freq.						2.70
NNW 334-338	2.9	338				2.9
	1	335				1
	1.43	334				1.43
	4.27	335				4.27
	1.88	335				1.88
AVE						2.30
STD.						1.31
Freq.						0.44
7-18-00-22 Fake Caywood 2 SL Orient. = 10 190						
ENE 70-79	0	75		255	65.00	1.13
	1.76	75	1.76	255	255.00	1.60
	2.87	75	1.11	255	255.00	1.01
	2.91	75	0.04	255	255.00	0.04
	3.76	72.5	0.85	253	252.50	0.75
	3.69	74	0.07	254	254.00	0.06
	3.98	72	0.29	252	252.00	0.26
	4.12	71	0.14	251	251.00	0.12
	4.18	72	0.06	252	252.00	0.05
	4.55	75	0.37	255	255.00	0.34
	5.5	75	0.95	255	255.00	0.86
	6.38	76	0.88	256	256.00	0.80
	3.2	74	3.18	254	254.00	2.86
	10.9	70	7.70	250	250.00	6.67
	9.73	70	1.17	250	250.00	1.01
	9.68	75	0.05	255	255.00	0.05
	9.54	65	0.14	245	245.00	0.11
	9.36	69	0.18	249	249.00	0.15
	7.49	79	1.87	259	259.00	1.75
	7.25	74	0.24	254	254.00	0.22
	6.89	77	0.36	257	257.00	0.33
	6.74	76	0.15	256	256.00	0.14

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- hemi)	Average Strike	Angle b/t SL and fract. Radians	True Spacing (m)
	6.7	75	0.04	255	255.00	65.00	1.13
							0.04
AVE							0.87
STD.							1.48
Freq.							1.15
NNW	0.55	332		152		38.00	0.66
330-338	5.1	335	4.55	155	155.00	35.00	0.61
	6.06	333	0.96	153	153.00	37.00	0.65
	11.5	330	5.44	150	150.00	40.00	0.70
	10.4	338	1.10	158	158.00	32.00	0.56
	9.75	331	0.65	151	151.00	39.00	0.68
	9.28	331	0.47	151	151.00	39.00	0.68
	9.1	335	0.18	155	155.00	35.00	0.61
	8.75	330	0.35	150	150.00	40.00	0.70
AVE							1.04
STD.							1.28
Freq.							0.96
NNE	2.1	35					
NS	10.1	13					

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Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
7-13-00-11									
Breakneck Creek		SL Orient. =							
		251.00	71.00						
NNW 326-342	A1	0.75	330.00		150.00		79.00	1.38	
	A2	1.93	334.00	1.18	154.00	154.00	83.00	1.45	1.17
	A5	4.62	332.00	2.69	152.00	152.00	81.00	1.41	2.66
	A6	4.79	330.00	0.17	150.00	150.00	79.00	1.38	0.17
	A7	7.97	329.00	3.18	149.00	149.00	78.00	1.36	3.11
	A8	5.77	330.00	2.20	150.00	150.00	79.00	1.38	2.16
	A9	6.06	326.00	0.29	146.00	146.00	75.00	1.31	0.28
	A12	7.29	334.00	1.23	154.00	154.00	83.00	1.45	1.22
	A13	7.31	331.00	0.02	151.00	151.00	80.00	1.40	0.02
	b4	35.42	334.00	28.11	154.00	154.00	83.00	1.45	27.90
	b5	35.25	334.00	0.17	154.00	154.00	83.00	1.45	0.17
	b6	35.20	336.00	0.05	156.00	156.00	85.00	1.48	0.05
	b1	37.80	342.00	2.60	162.00	162.00	89.00	1.55	2.60
	b2	36.90	342.00	0.90	162.00	162.00	89.00	1.55	0.90
AVE									3.26
STD.									7.48
Freq.									0.31
ENE	b3	36.18	72.00						
EW 85-276	A4	2.70	85.00		265.00		14.00	0.24	
	A14	9.87	276.00	7.17	96.00	96.00	25.00	0.44	3.03
	b12	13.70	275.00	0.44	95.00	95.00	24.00	0.42	0.18
	b11	14.14	90.00	1.61	270.00	270.00	19.00	0.33	0.52
	b10	15.75	276.00	8.94	96.00	96.00	25.00	0.44	3.78
	b8	24.69	90.00	5.31	270.00	270.00	19.00	0.33	1.73
	b7	30.00	90.00	20.13	270.00	270.00	19.00	0.33	6.55
AVE									2.63
STD.									2.37
Freq.									0.38
NS 353,9	A15	10.86	9.00		189.00		62.00	1.08	
	b9	21.09	353.00	10.23	173.00	173.00	78.00	1.36	10.01
AVE									10.01
STD.									
Freq.									0.10
7-19-00-23									
Silverthread		SL Orient. =							
		109.00	289.00						
NNW 335-342	a1	0.25	338.00		158.00		49.00	0.86	
	a4	1.62	340.00	1.37	160.00	160.00	51.00	0.89	1.06
	a9	12.85	335.00	11.23	155.00	155.00	46.00	0.80	8.08
	a10	15.40	342.00	2.55	162.00	162.00	53.00	0.93	2.04
AVE									3.73
STD.									3.80
Freq.									0.27
ENE 70-80	a2	0.40	75.00		255.00		34.00	0.59	
	a3	0.50	80.00	0.10	260.00	260.00	29.00	0.51	0.05
	a11	16.04	70.00	15.54	250.00	250.00	39.00	0.68	9.78
AVE									4.91
STD.									6.88
Freq.									0.20
NNE	a6	7.73	20.00						
NS 0-10	a5	1.62	4.00		184.00		75.00	1.31	
	a7	11.04	10.00	9.42	190.00	190.00	81.00	1.41	9.30
	a8	11.61	0.00	0.57	180.00	180.00	71.00	1.24	0.54

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
AVE								4.92
STD.								6.20
Freq.								0.20

7-19-00-24								
Mill Creek	SL Orient. =	300.00	120.00					
NNW	A1	1.09	335.00		155.00	35.00	0.61	
332-340	A6	5.10	339.00	4.01	159.00	159.00	39.00	2.52
	A7	6.64	336.00	1.54	156.00	156.00	36.00	0.91
	A8	6.72	340.00	0.08	160.00	160.00	40.00	0.05
	A9	7.70	340.00	0.99	160.00	160.00	40.00	0.63
	A11	9.36	335.00	1.66	155.00	155.00	35.00	0.95
	A12	9.65	338.00	0.29	158.00	158.00	38.00	0.18
	A15	14.38	335.00	4.73	155.00	155.00	35.00	2.71
	A16	14.97	332.00	0.59	152.00	152.00	32.00	0.31
	A17	15.24	337.00	0.27	157.00	157.00	37.00	0.16
AVE								1.06
STD.								1.43
Freq.								0.94
NS	A2	2.29	5.00					
ENE	A3	2.68	80.00		260.00	40.00	0.70	
70-80	A4	3.62	75.00	0.94	255.00	255.00	45.00	0.66
	A5	3.97	75.00	0.35	255.00	255.00	45.00	0.25
	A10	8.56	80.00	4.59	260.00	260.00	40.00	2.95
	A13	11.60	75.00	3.04	255.00	255.00	45.00	2.15
	A14	13.85	78.00	2.25	258.00	258.00	42.00	1.51
	A18	18.28	70.00	4.43	250.00	250.00	50.00	3.39
AVE								1.82
STD.								1.25
Freq.								0.55

7-19-00-25								
Lihigh RR	SL Orient. =	120.00	300.00					
ENE-E	b1	12.27	79.00		259.00	41.00	0.72	
72-86	b2	11.80	74.00	0.47	254.00	254.00	46.00	0.34
	b4	8.75	73.00	3.05	253.00	253.00	47.00	2.23
	b5	7.09	79.00	1.66	259.00	259.00	41.00	1.09
	b6	6.83	78.00	0.26	258.00	258.00	42.00	0.17
	b7	5.45	77.50	1.38	257.50	257.50	42.50	0.93
	b8	3.57	78.00	1.88	258.00	258.00	42.00	1.26
	b9	3.20	86.00	0.37	266.00	266.00	34.00	0.21
	b10	3.18	86.00	0.02	266.00	266.00	34.00	0.01
	b12	2.70	81.00	0.48	261.00	261.00	39.00	0.30
	b14	0.31	72.00	2.39	252.00	252.00	48.00	1.78
	b15	0.00	74.00	0.31	254.00	254.00	46.00	0.22
AVE								0.78
STD.								0.74
Freq.								1.29
NNW	b11	3.10	336.50					
NNE	b3	9.20	20.00		200.00	80.00	1.40	
	b13	1.21	20.00	7.99	200.00	200.00	80.00	7.87
AVE								7.87
STD.								
Freq.								0.13

7-19-00-26								
Shaw Rd. at Rail Rd	QD	FID						

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract. Radians	True Spacing (m)
NNW 338-340	A1		338.00					
	A2	1.15	340.00					1.15
	A3	0.43	340.00					0.43
	A4	0.74	340.00					0.74
	A5	0.74	340.00					0.74
AVE								0.77
STD.								0.30
Freq.								1.31
ENE 70-75	B1		72.00					
	B2	0.63	75.00					0.63
	B3	0.80	72.00					0.80
	B4	1.72	70.00					1.72
	B5	0.36	75.00					0.36
	B6	0.59	75.00					0.59
	B7	0.35	74.00					0.35
	B8	1.50	72.00					1.50
AVE								0.85
STD.								0.55
Freq.								1.18
7-20-00-27								
Lodi, Mill Crk		SL Orient. = 134.00 314.00						
ENE 65-78	a1	1.05	65.00		245.00		69.00	1.20
	a2	2.00	66.00	0.95	246.00	246.00	68.00	0.88
	a5	6.76	78.00	4.76	258.00	258.00	56.00	3.95
	a6	6.99	76.00	0.23	256.00	256.00	58.00	0.20
	a13	15.36	75.00	8.37	255.00	255.00	59.00	7.17
	a14	15.50	77.00	0.14	257.00	257.00	57.00	0.12
	a17	19.78	70.00	4.28	250.00	250.00	64.00	3.85
	a18	20.42	78.00	0.64	258.00	258.00	56.00	0.53
	a19	20.85	78.00	0.43	258.00	258.00	56.00	0.36
	a20	22.48	76.00	1.63	256.00	256.00	58.00	1.38
	a22	25.50	75.00	3.02	255.00	255.00	59.00	2.59
	a27	32.77	74.00	7.27	254.00	254.00	60.00	6.30
	a28	36.34	75.00	3.57	255.00	255.00	59.00	3.06
	a29	36.85	75.00	0.51	255.00	255.00	59.00	0.44
	a30	37.68	77.00	0.83	257.00	257.00	57.00	0.70
	a31	38.35	75.00	0.67	255.00	255.00	59.00	0.57
AVE								2.14
STD.								2.28
Freq.								0.47
NS 0-17	a4	6.65	0.00		180.00		46.00	0.80
	a7	9.47	10.00	2.82	190.00	190.00	56.00	2.34
	a11	12.21	15.00	2.74	195.00	195.00	61.00	2.40
	a23	27.34	17.00	15.13	197.00	197.00	63.00	13.48
	a25	28.43	14.00	1.09	194.00	194.00	60.00	0.94
	a26	28.53	14.00	0.10	194.00	194.00	60.00	0.09
AVE								3.85
STD.								5.47
Freq.								0.26
EW 280	a8	10.23	280.00		100.00		34.00	0.59
	a9	10.50	280.00	0.27	100.00	100.00	34.00	0.15
AVE								0.15
STD.								6.62
Freq.								
NNE	a12	14.07	20.00					
NE	a21	22.70	54.00					
NNW	a3	3.91	328.00		148.00		14.00	0.24

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
328-335	a10	11.80	335.00	7.89	155.00	155.00	21.00	0.37	2.83
	a15	19.40	330.00	7.60	150.00	150.00	16.00	0.28	2.09
	a16	19.78	333.00	0.38	153.00	153.00	19.00	0.33	0.12
	a24	28.29	335.00	8.51	155.00	155.00	21.00	0.37	3.05
	a32	40.40	330.00	12.11	150.00	150.00	16.00	0.28	3.34
AVE									2.29
STD.									1.29
Freq.									0.44

7-20-00-28		FID							
Mill Creek		SL Orient.							
		=	0.00	180.00					
ENE 66-79	A1	0.44	66.00		246.00	246.00		0.00	
	A2	0.76	75.00	0.32	255.00	255.00	75.00	1.31	0.31
	A4	1.61	76.00	0.85	256.00	256.00	76.00	1.33	0.82
	A5	1.78	75.00	0.17	255.00	255.00	75.00	1.31	0.16
	A7	3.44	75.00	1.66	255.00	255.00	75.00	1.31	1.60
	A8	4.44	75.00	1.00	255.00	255.00	75.00	1.31	0.97
	A9	5.36	76.00	0.92	256.00	256.00	76.00	1.33	0.89
	A12	6.89	76.00	1.53	256.00	256.00	76.00	1.33	1.48
	A13	8.85	75.00	1.96	255.00	255.00	75.00	1.31	1.89
	A14	10.02	75.00	1.17	255.00	255.00	75.00	1.31	1.13
	A15	12.03	75.00	2.02	255.00	255.00	75.00	1.31	1.95
	A18	13.05	76.00	1.02	256.00	256.00	76.00	1.33	0.99
	A19	14.12	74.00	1.07	254.00	254.00	74.00	1.29	1.02
	A20	15.87	75.00	1.76	255.00	255.00	75.00	1.31	1.70
	A21	16.06	76.00	0.19	256.00	256.00	76.00	1.33	0.18
	A22	17.48	75.00	1.42	255.00	255.00	75.00	1.31	1.37
	A23	18.60	79.00	1.13	259.00	259.00	79.00	1.38	1.10
	A24	19.11	75.00	0.51	255.00	255.00	75.00	1.31	0.49
	A25	19.57	73.00	0.46	253.00	253.00	73.00	1.27	0.44
	A26	20.18	71.00	0.61	251.00	251.00	71.00	1.24	0.58
	A28	20.99	76.00	0.81	256.00	256.00	76.00	1.33	0.79
	A29	21.99	76.00	1.00	256.00	256.00	76.00	1.33	0.97
	A30	22.35	78.00	0.36	258.00	258.00	78.00	1.36	0.35
AVE									0.96
STD.									0.53
Freq.									1.04
offline 1m east									
NNW	A6	along A4	330.00						
NNE	A27	20.24	15.00						
NE	A17	12.66	55.00						

7-20-00-29		SL Orient.							
Rhodes Rd.		=	20.00	200.00					
ENE 78-82	a1	0.81	80.00		260.00		60.00	1.05	
	a2	1.18	80.00	0.37	260.00	260.00	60.00	1.05	0.32
	a3	1.39	80.00	0.21	260.00	260.00	60.00	1.05	0.18
	a4	1.48	80.00	0.09	260.00	260.00	60.00	1.05	0.08
	a5	1.55	80.00	0.07	260.00	260.00	60.00	1.05	0.06
	a6	1.91	80.00	0.36	260.00	260.00	60.00	1.05	0.31
	a7	2.05	80.00	0.14	260.00	260.00	60.00	1.05	0.12
	a8	2.34	80.00	0.29	260.00	260.00	60.00	1.05	0.25
	a9	3.25	82.00	0.91	262.00	262.00	62.00	1.08	0.80
	a10	3.56	82.00	0.31	262.00	262.00	62.00	1.08	0.27
	a11	3.77	82.00	0.21	262.00	262.00	62.00	1.08	0.19
	a12	4.16	81.00	0.39	261.00	261.00	61.00	1.06	0.34
	a13	4.40	81.00	0.24	261.00	261.00	61.00	1.06	0.21
	a15	4.69	82.00	0.29	262.00	262.00	62.00	1.08	0.26
	a16	4.80	80.00	0.11	260.00	260.00	60.00	1.05	0.10

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract. Radians	True Spacing (m)
	a17	5.35	82.00	0.55	262.00	262.00	62.00	0.49
	a18	5.50	80.00	0.15	260.00	260.00	60.00	0.13
	a19	6.60	78.00	1.10	258.00	258.00	58.00	0.93
	a20	7.05	80.00	0.45	260.00	260.00	60.00	0.39
	a21	7.46	82.00	0.41	262.00	262.00	62.00	0.36
	a22	7.60	80.00	0.14	260.00	260.00	60.00	0.12
	a23	7.86	80.00	0.26	260.00	260.00	60.00	0.23
	a24	8.05	82.00	0.19	262.00	262.00	62.00	0.17
	a26	8.88	80.00	0.83	260.00	260.00	60.00	0.72
	a27	9.28	80.00	0.40	260.00	260.00	60.00	0.35
	a28	9.66	80.00	0.38	260.00	260.00	60.00	0.33
	a29	9.05	80.00	0.61	260.00	260.00	60.00	0.53
AVE								0.32
STD.								0.22
Freq.								3.16
NS 10	a25	8.80	10.00		190.00		10.00	0.17
	a14	4.49	10.00	4.31	190.00	190.00	10.00	0.75
AVE								0.75
STD.								
Freq.								1.34
NNW	a30	10.17	334.00					

7-20-00-30								
Rhodes Rd		SL Orient. =		234.00	54.00			
EW 79-90	A1	0.00	81.00		261.00	261.00	0.00	
	A3	0.44	85.00	0.44	265.00	265.00	31.00	0.23
	A4	0.52	82.00	0.08	262.00	262.00	28.00	0.49
	A5	1.00	83.00	0.48	263.00	263.00	29.00	0.23
	A6	1.08	85.00	0.08	265.00	265.00	31.00	0.54
	A7	1.34	85.00	0.26	265.00	265.00	31.00	0.54
	A8	1.42	82.00	0.08	262.00	262.00	28.00	0.49
	A9	1.67	79.00	0.25	259.00	259.00	25.00	0.44
	A11	2.50	85.00	0.83	265.00	265.00	31.00	0.54
	A12	3.05	86.00	0.55	266.00	266.00	32.00	0.56
	A13	3.41	79.00	0.36	259.00	259.00	25.00	0.44
	A14	4.33	87.00	0.92	267.00	267.00	33.00	0.58
	A15	4.60	85.00	0.27	265.00	265.00	31.00	0.54
	A16	5.00	90.00	0.40	270.00	270.00	36.00	0.63
AVE								0.20
STD.								0.14
Freq.								5.08
NS 10-12	A9.5	2.25	10.00		190.00	190.00	0.00	
	A10	4.25	12.00	2.00	192.00	192.00	42.00	0.73
AVE								1.34
STD.								
Freq.								0.75

07-24-00-31								
Sawmill		SL Orient. =		205.00				
NNW 330-349	a1	0.00	330.00		150.00		84.00	1.47
	a2	0.31	330.00	0.31	150.00	150.00	84.00	1.47
	a3	0.65	335.00	0.34	155.00	155.00	79.00	1.38
	a4	1.61	333.00	0.96	153.00	153.00	81.00	1.41
	a5	1.66	333.00	0.05	153.00	153.00	81.00	1.41
	a6	1.97	332.00	0.31	152.00	152.00	82.00	1.43
	a7	2.62	333.00	0.65	153.00	153.00	81.00	1.41
	a8	3.15	335.00	0.53	155.00	155.00	79.00	1.38
	a9	3.46	334.50	0.31	154.50	154.50	79.50	1.39
	B7	5.18	330.00	1.72	150.00	150.00	84.00	1.47
	B6	5.35	334.00	0.17	154.00	154.00	80.00	1.40

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract. Radians	True Spacing (m)
	B5	6.50	349.00	1.15	169.00	169.00	65.00	1.04
	B4	8.30	330.00	1.80	150.00	150.00	84.00	1.79
	B3	9.73	335.00	1.43	155.00	155.00	79.00	1.40
	B2	10.10	335.00	0.37	155.00	155.00	79.00	0.36
	B1	10.80	335.00	0.70	155.00	155.00	79.00	0.69
	AVE							0.71
	STD.							0.56
	Freq.							1.42

7-25-00-34		SL Orient.							
Rhodes Rd Creek		=	19.50	199.50					
ENE	A1	0.00	80.00		260.00		60.50	1.06	
75-82	A3	0.53	75.00	0.53	255.00	255.00	55.50	0.97	0.44
	A4	0.66	80.00	0.13	260.00	260.00	60.50	1.06	0.11
	A5	0.68	80.00	0.02	260.00	260.00	60.50	1.06	0.02
	A6	0.79	80.00	0.11	260.00	260.00	60.50	1.06	0.10
	A7	1.05	81.00	0.26	261.00	261.00	61.50	1.07	0.23
	A8	1.13	80.50	0.08	260.50	260.50	61.00	1.06	0.07
	a10	2.00	82.00	0.88	262.00	262.00	62.50	1.09	0.78
	a11	2.25	80.00	0.25	260.00	260.00	60.50	1.06	0.22
	B5	2.64	79.00	0.39	259.00	259.00	59.50	1.04	0.34
	a12	2.65	82.00	0.01	262.00	262.00	62.50	1.09	0.01
	B4	2.67	80.00	0.02	260.00	260.00	60.50	1.06	0.02
	B3	2.88	80.00	0.21	260.00	260.00	60.50	1.06	0.18
	B2	2.90	79.00	0.02	259.00	259.00	59.50	1.04	0.02
	AVE								0.23
	STD.								0.24
	Freq.								4.36
NS	A2	0.33	10.00		190.00		9.50	0.17	
0,10	a9	1.25	0.00	0.92	180.00	180.00	19.50	0.34	0.31
	AVE								0.31
	STD.								
	Freq.								3.26
ENE	B1	3.01	81.00						

7-25-00-35		EW FID							
Shaw Rd		SL Orient.							
		=	144.00	324.00					
EW	a1	0.00	85.00		265.00		59.00	1.03	
76-295	a2	0.17	81.00	0.17	261.00	261.00	63.00	1.10	0.15
	a3	0.45	89.00	0.28	269.00	269.00	55.00	0.96	0.23
	a4	0.68	85.00	0.23	265.00	265.00	59.00	1.03	0.20
	a5	0.88	98.00	0.20	278.00	278.00	46.00	0.80	0.14
	a6	1.09	95.00	0.21	275.00	275.00	49.00	0.86	0.16
	a7	1.27	84.00	0.18	264.00	264.00	60.00	1.05	0.16
	a8	1.47	89.00	0.20	269.00	269.00	55.00	0.96	0.16
	a9	1.55	90.00	0.08	270.00	270.00	54.00	0.94	0.06
	a10	1.85	86.00	0.30	266.00	266.00	58.00	1.01	0.25
	a11	2.15	277.00	0.30	97.00	97.00	47.00	0.82	0.22
	a12	2.38	82.00	0.23	262.00	262.00	62.00	1.08	0.20
	a13	2.40	295.00	0.02	115.00	115.00	29.00	0.51	0.01
	a14	2.51	80.00	0.11	260.00	260.00	64.00	1.12	0.10
	a15	2.65	78.00	0.14	258.00	258.00	66.00	1.15	0.13
	a16	2.76	285.00	0.11	105.00	105.00	39.00	0.68	0.07
	a17	3.03	85.00	0.27	265.00	265.00	59.00	1.03	0.23
	a18	3.24	84.00	0.21	264.00	264.00	60.00	1.05	0.18
	a19	3.35	86.00	0.11	266.00	266.00	58.00	1.01	0.09
	a20	3.37	90.00	0.02	270.00	270.00	54.00	0.94	0.02
	B17	3.75	79.00	0.38	259.00	259.00	65.00	1.13	0.34
	B18	3.70	87.00	0.05	267.00	267.00	57.00	0.99	0.04
	B15	7.59	86.00	3.89	266.00	266.00	58.00	1.01	3.30

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and		True Spacing (m)
							fract.	Radians	
	B14	6.77	93.00	0.82	273.00	273.00	51.00	0.89	0.64
	B13	6.43	84.00	0.34	264.00	264.00	60.00	1.05	0.29
	B12	6.19	87.00	0.24	267.00	267.00	57.00	0.99	0.20
	B11	6.14	85.00	0.05	265.00	265.00	59.00	1.03	0.04
	B10	5.43	76.00	0.72	256.00	256.00	68.00	1.19	0.66
	B9	5.15	81.00	0.27	261.00	261.00	63.00	1.10	0.25
	B7	5.10	80.00	0.05	260.00	260.00	64.00	1.12	0.04
	B6	4.93	84.00	0.17	264.00	264.00	60.00	1.05	0.15
	B5	4.81	78.00	0.12	258.00	258.00	66.00	1.15	0.11
	B4	4.62	80.00	0.19	260.00	260.00	64.00	1.12	0.18
	B3	4.39	93.00	0.23	273.00	273.00	51.00	0.89	0.17
	B1	4.17	92.00	0.22	272.00	272.00	52.00	0.91	0.17
AVE									0.28
STD.									0.55
Freq.									3.63
ENE 70-72	B8	5.28	70.00		250.00		74.00	1.29	
	B16	3.96	72.00	1.32	252.00	252.00	72.00	1.26	1.26
AVE									1.26
STD.									
Freq.									0.80
NNE	B2	7.13	37.00						

07-26-00-36									
Silverthread		SL Orient.							
		=	320.00	140.00					
EW 75-275	a1	0.13	78.00		258.00		62.00	1.08	
	a3	0.30	79.00	0.17	259.00	259.00	61.00	1.06	0.15
	a4	0.88	80.00	0.58	260.00	260.00	60.00	1.05	0.50
	a5	0.98	78.00	0.10	258.00	258.00	62.00	1.08	0.09
	a6	1.50	76.00	0.52	256.00	256.00	64.00	1.12	0.47
	a8	1.32	75.00	0.18	255.00	255.00	65.00	1.13	0.16
	a11	6.00	275.00	4.68	95.00	95.00	225.00	3.93	3.31
	a12	6.78	75.00	0.78	255.00	255.00	65.00	1.13	0.71
	a13	7.10	76.00	0.32	256.00	256.00	64.00	1.12	0.29
	a14	9.80	78.00	2.70	258.00	258.00	62.00	1.08	2.38
	a16	10.52	78.00	0.72	258.00	258.00	62.00	1.08	0.64
	a17	11.12	76.00	0.60	256.00	256.00	64.00	1.12	0.54
	a18	11.27	87.00	0.15	267.00	267.00	53.00	0.93	0.12
	a21	12.67	79.00	1.40	259.00	259.00	61.00	1.06	1.22
	a23	14.00	76.00	1.33	256.00	256.00	64.00	1.12	1.20
AVE									0.84
STD.									0.94
Freq.									1.19
NNW 330-338	a2	0.13	335.00		155.00		15.00	0.26	
	a7	2.00	332.00	1.87	152.00	152.00	12.00	0.21	0.39
	a9	4.21	330.00	2.21	150.00	150.00	10.00	0.17	0.38
	a10	5.54	338.00	1.33	158.00	158.00	18.00	0.31	0.41
	a15	7.90	334.00	2.36	154.00	154.00	14.00	0.24	0.57
	a22	10.10	332.00	2.32	152.00	152.00	12.00	0.21	0.48
	a19	12.42	333.00	4.52	153.00	153.00	13.00	0.23	1.02
AVE									0.54
STD.									0.24
Freq.									1.84
ENE	a20	12.52 off	64.00						

7-26-00-37									
335° FID									
SL Orient.									
Sherry Burrows		=	34.00	214.00					
ENE	1.00	0.00	75.00		255.00		41.00	0.72	
65-80	2.00	2.60	75.00	2.60	255.00	255.00	41.00	0.72	1.71

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	3.00	2.73	80.00	0.13	260.00	260.00	46.00	0.80	0.09
	5.00	3.05	72.00	0.32	252.00	252.00	38.00	0.66	0.20
	7.00	5.42	71.00	2.37	251.00	251.00	37.00	0.65	1.43
	9.00	5.63	70.00	0.21	250.00	250.00	36.00	0.63	0.12
	11.00	6.42	75.00	0.79	255.00	255.00	41.00	0.72	0.52
	13.00	7.43	65.00	1.01	245.00	245.00	31.00	0.54	0.52
	20.00	9.96	75.00	2.53	255.00	255.00	41.00	0.72	1.66
	21.00	12.18	75.00	2.22	255.00	255.00	41.00	0.72	1.46
	22.00	12.27	75.00	0.09	255.00	255.00	41.00	0.72	0.06
AVE									0.78
STD.									0.70
Freq.									1.29
NS	4.00	3.34	4.00						
NNW 334-349	6.00	5.14	334.00		154.00		60.00	1.05	
	8.00	5.49	335.00	0.35	155.00	155.00	59.00	1.03	0.30
14-18=FID	10.00	5.74	342.00	0.25	162.00	162.00	52.00	0.91	0.20
	12.00	6.65	349.00	0.91	169.00	169.00	45.00	0.79	0.64
	14.00	8.35	335.00	1.70	155.00	155.00	59.00	1.03	1.46
	15.00	8.38	334.00	0.03	154.00	154.00	60.00	1.05	0.03
	16.00	8.40	336.00	0.02	156.00	156.00	58.00	1.01	0.02
	17.00	8.45	340.00	0.05	160.00	160.00	54.00	0.94	0.04
	18.00	8.55	345.00	0.10	165.00	165.00	49.00	0.86	0.08
AVE									0.34
STD.									0.50
Freq.									2.90
EW	19.00	8.96	275.00						

07-26-00-38									
Silverthread		SL Orient. = 220.00							
NNW 330-340	a1	0.67	340.00		160.00		60.00	1.05	
	a3	1.65	338.00	0.98	158.00	158.00	62.00	1.08	0.87
	a4	1.83	335.00	0.18	155.00	155.00	65.00	1.13	0.16
	a5	2.16	330.00	0.33	150.00	150.00	70.00	1.22	0.31
	a7	2.34	334.00	0.18	154.00	154.00	66.00	1.15	0.16
	a9	2.97	341.00	0.63	161.00	161.00	59.00	1.03	0.54
	a10	3.07	340.00	0.10	160.00	160.00	60.00	1.05	0.09
AVE									0.35
STD.									0.30
Freq.									2.82
ENE 74-81	a2	1.07	75.00		255.00		35.00	0.61	
	a6	2.18	74.00	1.11	254.00	254.00	34.00	0.59	0.62
	a8	2.61	75.00	0.43	255.00	255.00	35.00	0.61	0.25
	a11	4.03	75.00	1.42	255.00	255.00	35.00	0.61	0.81
	a12	4.34	75.00	0.31	255.00	255.00	35.00	0.61	0.18
	a13	5.55	81.00	1.21	261.00	261.00	41.00	0.72	0.79
AVE									0.53
STD.									0.30
Freq.									1.88

7-26-00-39									
Sherry Burrow's Property		SL Orient. = 220.00							
NNW 328-338	a1	0.00	335.00		155.00		65.00	1.13	
	a3	0.37	332.00	0.37	152.00	152.00	68.00	1.19	0.34
	a5	0.61	330.00	0.24	150.00	150.00	70.00	1.22	0.23
	a6	0.94	330.00	0.33	150.00	150.00	70.00	1.22	0.31
	a8	1.08	334.00	0.14	154.00	154.00	66.00	1.15	0.13
	a9	1.12	335.00	0.04	155.00	155.00	65.00	1.13	0.04
	a10	1.60	328.00	0.48	148.00	148.00	72.00	1.26	0.46
	a11	1.84	332.00	0.24	152.00	152.00	68.00	1.19	0.22

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	a14	2.95	326.00	1.11	146.00	146.00	74.00	1.29	1.07
	a15	3.30	332.00	0.35	152.00	152.00	68.00	1.19	0.32
	a16	4.90	335.00	1.60	155.00	155.00	65.00	1.13	1.45
	a18	5.38	331.00	0.48	151.00	151.00	69.00	1.20	0.45
	a19	5.41	334.00	0.03	154.00	154.00	66.00	1.15	0.03
	a20	5.68	334.00	0.27	154.00	154.00	66.00	1.15	0.25
	B12	9.94	338.00	4.26	158.00	158.00	62.00	1.08	3.76
	B9	10.16	336.00	0.22	156.00	156.00	64.00	1.12	0.20
	AVE								0.62
	STD.								0.95
	Freq.								1.62
ENE 71-80	a2	0.30	80.00		260.00		40.00	0.70	
	a4	0.50	78.00	0.20	258.00	258.00	38.00	0.66	0.12
	a7	1.06	79.00	0.56	259.00	259.00	39.00	0.68	0.35
	a12	2.13	76.00	1.07	256.00	256.00	36.00	0.63	0.63
	a13	2.55	80.00	0.42	260.00	260.00	40.00	0.70	0.27
	a17	4.90	76.00	2.35	256.00	256.00	36.00	0.63	1.38
	a21	5.68	77.00	0.78	257.00	257.00	37.00	0.65	0.47
	a22	6.27	75.00	0.59	255.00	255.00	35.00	0.61	0.34
	B2	17.07	75.00	10.80	255.00	255.00	35.00	0.61	6.19
	B3	15.62	74.00	1.45	254.00	254.00	34.00	0.59	0.81
	B4	14.61	74.00	1.01	254.00	254.00	34.00	0.59	0.56
	B5	13.63	71.00	0.98	251.00	251.00	31.00	0.54	0.50
	B6	12.94	75.00	0.69	255.00	255.00	35.00	0.61	0.40
	B7	12.26	75.00	0.68	255.00	255.00	35.00	0.61	0.39
	B8	12.12	76.00	0.14	256.00	256.00	36.00	0.63	0.08
	B10	10.10	73.00	2.02	253.00	253.00	33.00	0.58	1.10
	B11	10.04	75.00	0.06	255.00	255.00	35.00	0.61	0.03
	AVE								0.85
	STD.								1.47
	Freq.								1.17
NS	B1	17.33	8.00						

7-26-00-40									
Gravel Pit	SL Orient.	= 243.00							
NNW 325-335	1.00	0.25	335.00		155.00		88.00	1.54	
	2.00	4.25	335.00	4.00	155.00	155.00	88.00	1.54	4.00
	3.00	5.75	327.00	1.50	147.00	147.00	96.00	1.68	1.49
	4.00	6.45	332.00	0.70	152.00	152.00	91.00	1.59	0.70
	5.00	8.35	325.00	1.90	145.00	145.00	98.00	1.71	1.88
	6.00	11.70	330.00	3.35	150.00	150.00	93.00	1.62	3.35
	7.00	12.75	335.00	1.05	155.00	155.00	88.00	1.54	1.05
	8.00	14.40	330.00	1.65	150.00	150.00	93.00	1.62	1.65
	9.00	15.35	330.00	0.95	150.00	150.00	93.00	1.62	0.95
	10.00	19.75	335.00	4.40	155.00	155.00	88.00	1.54	4.40
	11.00	22.75	335.00	3.00	155.00	155.00	88.00	1.54	3.00
	12.00	23.40	330.00	0.65	150.00	150.00	93.00	1.62	0.65
	13.00	26.50	325.00	3.10	145.00	145.00	98.00	1.71	3.07
	AVE								2.18
	STD.								1.32
	Freq.								0.46

7-27-00-41									
Shaw Rd Creek 2 QD									
ENE 74-75	A1		74.00						
	A2	0.60	75.00						0.60
	A3	0.20	75.00						0.20
	A4	0.31	74.00						0.31
	A5	0.37	74.00						0.37
	A6	0.60	74.00						0.60
	A7	0.45	75.00						0.45

RDJ 7
QD

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)	
AVE									0.42	
STD.									0.16	
Freq.									2.37	
NS 358-5	B1		5.00							
	B2	0.65	358.00						0.65	
	B3	0.96	3.00						0.96	
	B4	0.73	358.00						0.73	
AVE									0.78	
STD.									0.16	
Freq.									1.28	
NNW	C1		330.00							
07-27-00-42										
Shaw Rd. C	SL Orient. =		none in kw notes							
ENE 75-82	a1	1.81	82.00		262.00		82.00	1.43		
	a2	2.07	78.00	0.26	258.00	258.00	78.00	1.36	0.25	
	a3	2.32	76.00	0.25	256.00	256.00	76.00	1.33	0.24	
	a4	2.60	76.00	0.28	256.00	256.00	76.00	1.33	0.27	
	a5	2.89	75.00	0.29	255.00	255.00	75.00	1.31	0.28	
	a7	3.19	80.00	0.30	260.00	260.00	80.00	1.40	0.30	
	a8	3.30	75.00	0.11	255.00	255.00	75.00	1.31	0.11	
	a9	3.38	76.00	0.08	256.00	256.00	76.00	1.33	0.08	
	a10	3.51	76.00	0.13	256.00	256.00	76.00	1.33	0.13	
	a11	4.06	76.00	0.55	256.00	256.00	76.00	1.33	0.53	
	a12	4.25	79.00	0.19	259.00	259.00	79.00	1.38	0.19	
	a14	4.75	76.00	0.50	256.00	256.00	76.00	1.33	0.49	
	a15	5.00	77.00	0.25	257.00	257.00	77.00	1.34	0.24	
	a17	5.57	76.00	0.57	256.00	256.00	76.00	1.33	0.55	
	AVE									0.28
	STD.									0.15
	Freq.									3.56
NS 350-11	a13	5.43	10.00		190.00		10.00	0.17		
	a6	2.58	11.00	2.85	191.00	191.00	11.00	0.19	0.54	
	a16	5.40	350.00	2.82	170.00	170.00	10.00	0.17	0.49	
AVE									0.52	
STD.									0.04	
Freq.									1.94	
7-27-00-43										
RDJ 8										
Shaw Rd Creek 2	SL Orient. =	40.00	220.00							
ENE 70-79	1.00	0.00	76.00		256.00		36.00	0.63		
	2.00	0.22	79.00	0.22	259.00	259.00	39.00	0.68	0.14	
	3.00	0.64	77.00	0.42	257.00	257.00	37.00	0.65	0.25	
	4.00	0.69	77.00	0.05	257.00	257.00	37.00	0.65	0.03	
	5.00	1.80	76.00	1.11	256.00	256.00	36.00	0.63	0.65	
	6.00	1.28	77.00	0.52	257.00	257.00	37.00	0.65	0.31	
	7.00	1.41	76.00	0.13	256.00	256.00	36.00	0.63	0.08	
	9.00	1.86	78.00	0.45	258.00	258.00	38.00	0.66	0.27	
	10.00	1.95	78.00	0.10	258.00	258.00	38.00	0.66	0.06	
	11.00	2.11	78.00	0.16	258.00	258.00	38.00	0.66	0.10	
	12.00	2.31	77.00	0.20	257.00	257.00	37.00	0.65	0.12	
	13.00	2.39	76.00	0.08	256.00	256.00	36.00	0.63	0.05	
	15.00	3.16	79.00	0.77	259.00	259.00	39.00	0.68	0.48	
	16.00	3.28	76.00	0.12	256.00	256.00	36.00	0.63	0.07	
	18.00	3.72	77.00	0.44	257.00	257.00	37.00	0.65	0.26	
	19.00	4.35	79.00	0.63	259.00	259.00	39.00	0.68	0.40	
	21.00	5.22	74.00	0.87	254.00	254.00	34.00	0.59	0.49	
	22.00	6.20	77.00	0.98	257.00	257.00	37.00	0.65	0.59	
	23.00	7.12	76.00	0.92	256.00	256.00	36.00	0.63	0.54	

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	24.00	7.54	70.00	0.42	250.00	250.00	30.00	0.52	0.21
	25.00	8.40	76.00	0.86	256.00	256.00	36.00	0.63	0.51
	AVE								0.28
	STD.								0.20
	Freq.								3.56
NS	17.00	3.43	5.00		185.00		5.00	0.09	
350-5	20.00	4.90	350.00	1.47	530.00	530.00	350.00	6.11	0.26
	AVE								0.26
	STD.								
	Freq.								3.92

07-27-00-44k		FID							
Shaw Rd. C		SL Orient.							
		=		354.00	174.00				
ENE	a1	0.55	77.00		257.00		83.00	1.45	
75-77	a2	0.69	76.00	0.14	256.00	256.00	82.00	1.43	0.14
	a3	1.13	76.00	0.44	256.00	256.00	82.00	1.43	0.44
	a4	1.39	76.00	0.26	256.00	256.00	82.00	1.43	0.26
	a5	1.46	76.00	0.07	256.00	256.00	82.00	1.43	0.07
	a6	1.72	76.00	0.26	256.00	256.00	82.00	1.43	0.26
	a8	1.96	76.00	0.24	256.00	256.00	82.00	1.43	0.24
	a9	2.18	76.00	0.22	256.00	256.00	82.00	1.43	0.22
	a10	2.48	76.00	0.30	256.00	256.00	82.00	1.43	0.30
	a11	2.67	75.00	0.19	255.00	255.00	81.00	1.41	0.19
	a12	2.95	76.00	0.28	256.00	256.00	82.00	1.43	0.28
	a13	3.02	76.00	0.07	256.00	256.00	82.00	1.43	0.07
	a14	3.23	76.00	0.21	256.00	256.00	82.00	1.43	0.21
	a15	3.42	75.00	0.19	255.00	255.00	81.00	1.41	0.19
	a16	4.33	75.00	0.91	255.00	255.00	81.00	1.41	0.90
	a17	4.46	76.00	0.13	256.00	256.00	82.00	1.43	0.13
	a18	4.73	76.00	0.27	256.00	256.00	82.00	1.43	0.27
	AVE								0.26
	STD.								0.19
	Freq.								3.87
NW	a7	off 12cm	314.00						

8-2-00-44c		RDJ 10							
Creek at the N. end		SL Orient.							
of Lodi Point		=		270.00	90.00				
NS	1.00	0	9.00		189.00		81.00	1.41	
349-11	9.00	2.88	9.00	2.88	189.00	189.00	81.00	1.41	2.84
	14.00	5.13	9.00	2.25	189.00	189.00	81.00	1.41	2.22
	15.00	5.21	11.00	0.08	191.00	191.00	79.00	1.38	0.08
	19.00	5.72	10.00	0.51	190.00	190.00	80.00	1.40	0.50
	28.00	6.86	11.00	1.14	191.00	191.00	79.00	1.38	1.12
	33.00	7.51	349.00	0.65	169.00	169.00	79.00	1.38	0.64
	34.00	7.82	15.00	0.31	195.00	195.00	75.00	1.31	0.30
	35.00	7.87	9.00	0.05	189.00	189.00	81.00	1.41	0.05
	AVE								0.97
	STD.								1.04
	Freq.								1.03
NNE	11.00	3.45	23.00		203.00		67.00	1.17	
23-26	16.00	5.34	26.00	1.89	206.00	206.00	64.00	1.12	1.70
	27.00	6.69	26.00	1.35	206.00	206.00	64.00	1.12	1.21
	AVE								1.46
	STD.								0.34
	Freq.								0.69
NE	6.00	1.83	45.00		225.00		45.00	0.79	
45	30.00	7.14	45.00	5.31	225.00	225.00	45.00	0.79	3.75
	AVE								3.75
	STD.								

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract. Radians	True Spacing (m)
	Freq.							0.27
EW 80-88	8.00 25.00	2.29 6.45	80.00 88.00		260.00 268.00		10.00 2.00	0.17 0.03
	AVE STD. Freq.							0.15 6.89
NNW 329-342	12.00 13.00 18.00 20.00 21.00 22.00 23.00 26.00 29.00 31.00 32.00	4.18 4.66 5.60 5.83 5.88 5.97 6.05 6.48 7.02 7.18 7.34	336.00 325.00 330.00 342.00 334.00 333.00 335.00 330.00 333.00 329.00 334.00		156.00 145.00 150.00 162.00 154.00 153.00 155.00 150.00 153.00 149.00 154.00		66.00 55.00 60.00 72.00 64.00 63.00 65.00 60.00 63.00 59.00 64.00	1.15 0.96 1.05 1.26 1.12 1.10 1.13 1.05 1.10 1.03 1.12
	AVE STD. Freq.							0.28 0.24 3.63

07-27-00-45k								
twist, Shaw	SL Orient.	=	80.00	260.00				
NS 350-9	a1 a2 a4 a5 a11 a13	0.00 0.62 4.71 5.08 5.81 7.10	9.00 1.00 4.00 5.00 9.50 350.00		189.00 181.00 184.00 185.00 189.50 530.00		71.00 79.00 76.00 75.00 70.50 270.00	1.24 1.38 1.33 1.31 1.23 4.71
	AVE STD. Freq.							0.61 3.97 0.36 0.69 1.29
NNW 325-328	a6 a7 a10	5.29 5.33 5.75	328.00 325.00 325.00		148.00 145.00 145.00		68.00 65.00 65.00	1.19 1.13 1.13
	AVE STD. Freq.							0.04 0.38
	AVE STD. Freq.							0.21 0.24 4.80
NNE	a3	4.06	30.00					
NE 53,56	a8 a9	5.49 5.74	56.00 53.00		236.00 233.00		24.00 27.00	0.42 0.47
	AVE STD. Freq.							0.11 0.11 8.81
ENE	a12	5.83	78.00					

8-2-00-45c RDJ 11								
Creek at the N. end of Lodi Pt	SL Orient.	=	215.00	35.00				
ENE 72-80	1.00 9.00 24.00 25.00 26.00 50.00 51.00 52.00	0.00 .191 .483 .610 .686 1.594 2.019 2.057	76.00 74.00 75.00 79.00 80.00 72.00 72.00 73.00		256.00 254.00 255.00 259.00 260.00 252.00 252.00 253.00		41.00 39.00 40.00 44.00 45.00 37.00 37.00 38.00	0.72 0.68 0.70 0.77 0.79 0.65 0.65 0.66
	AVE							0.12 0.19 0.09 0.05 0.55 0.26 0.02
	AVE							0.18

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	STD.								0.18
	Freq.								5.49
EW- WNW 275-325	2.00	.095	275.00		95.00		60.00	1.05	
	3.00	.101	275.00	0.01	95.00	95.00	60.00	1.05	0.01
	4.00	.108	275.00	0.01	95.00	95.00	60.00	1.05	0.01
	5.00	.133	275.00	0.03	95.00	95.00	5.00	0.09	0.00
	6.00	.165	275.00	0.03	95.00	95.00	5.00	0.09	0.00
	7.00	.178	275.00	0.01	95.00	95.00	5.00	0.09	0.00
	8.00	.187	275.00	0.01	95.00	95.00	5.00	0.09	0.00
	10.00	.279	295.00	0.09	115.00	115.00	25.00	0.44	0.04
	11.00	.292	295.00	0.01	115.00	115.00	25.00	0.44	0.01
	12.00	.305	295.00	0.01	115.00	115.00	25.00	0.44	0.01
	13.00	.321	295.00	0.02	115.00	115.00	25.00	0.44	0.01
	14.00	.33	295.00	0.01	115.00	115.00	25.00	0.44	0.00
	15.00	.346	295.00	0.02	115.00	115.00	25.00	0.44	0.01
	16.00	.356	295.00	0.01	115.00	115.00	25.00	0.44	0.00
	17.00	.371	295.00	0.02	115.00	115.00	25.00	0.44	0.01
	18.00	.387	295.00	0.02	115.00	115.00	25.00	0.44	0.01
	19.00	.406	295.00	0.02	115.00	115.00	25.00	0.44	0.01
	20.00	.419	295.00	0.01	115.00	115.00	25.00	0.44	0.01
	21.00	.438	295.00	0.02	115.00	115.00	25.00	0.44	0.01
	22.00	.448	295.00	0.01	115.00	115.00	25.00	0.44	0.00
	23.00	.451	295.00	0.00	115.00	115.00	25.00	0.44	0.00
	27.00	.749	296.00	0.30	116.00	116.00	26.00	0.45	0.13
	28.00	.826	296.00	0.08	116.00	116.00	26.00	0.45	0.03
	29.00	.838	296.00	0.01	116.00	116.00	26.00	0.45	0.01
	30.00	.864	296.00	0.03	116.00	116.00	26.00	0.45	0.01
	31.00	.933	296.00	0.07	116.00	116.00	26.00	0.45	0.03
	32.00	.978	296.00	0.04	116.00	116.00	26.00	0.45	0.02
	33.00	.997	305.00	0.02	125.00	125.00	35.00	0.61	0.01
	34.00	1.029	305.00	0.03	125.00	125.00	35.00	0.61	0.02
	35.00	1.041	305.00	0.01	125.00	125.00	35.00	0.61	0.01
	36.00	1.067	305.00	0.03	125.00	125.00	35.00	0.61	0.01
	37.00	1.092	305.00	0.03	125.00	125.00	35.00	0.61	0.01
	38.00	1.105	305.00	0.01	125.00	125.00	35.00	0.61	0.01
	39.00	1.118	305.00	0.01	125.00	125.00	35.00	0.61	0.01
	40.00	1.113	305.00	0.01	125.00	125.00	35.00	0.61	0.00
	41.00	1.143	305.00	0.03	125.00	125.00	35.00	0.61	0.02
	42.00	1.168	305.00	0.02	125.00	125.00	35.00	0.61	0.01
	43.00	1.175	305.00	0.01	125.00	125.00	35.00	0.61	0.00
	44.00	1.245	320.00	0.07	140.00	140.00	50.00	0.87	0.05
	45.00	1.257	320.00	0.01	140.00	140.00	50.00	0.87	0.01
	46.00	1.295	320.00	0.04	140.00	140.00	50.00	0.87	0.03
	47.00	1.308	320.00	0.01	140.00	140.00	50.00	0.87	0.01
	48.00	1.441	325.00	0.13	145.00	145.00	55.00	0.96	0.11
	49.00	1.499	325.00	0.06	145.00	145.00	55.00	0.96	0.05
	AVE								0.02
	STD.								0.03
	Freq.								58.28

8-3-00-46 RDJ 13A									
Creek at the N. end SL Orient.									
of Lodi Pt	=	169	349.00						
ENE 71-81	A1	0.01	81.00		261.00		88.00	1.54	
	A3	0.34	71.00	0.33	251.00	251.00	82.00	1.43	0.33
	A4	0.49	74.00	0.15	254.00	254.00	85.00	1.48	0.15
	A5	0.54	79.00	0.05	259.00	259.00	90.00	1.57	0.05
	A6	0.92	72.00	0.38	252.00	252.00	83.00	1.45	0.38
	A7	1.43	76.00	0.51	256.00	256.00	87.00	1.52	0.51
	A8	1.65	77.00	0.22	257.00	257.00	88.00	1.54	0.22
	A9	1.70	75.00	0.05	255.00	255.00	86.00	1.50	0.05
	A10	1.99	73.00	0.29	253.00	253.00	84.00	1.47	0.29
	A11	2.05	76.00	0.06	256.00	256.00	87.00	1.52	0.06
	A12	2.37	76.00	0.32	256.00	256.00	87.00	1.52	0.32
	A13	2.49	77.00	0.12	257.00	257.00	88.00	1.54	0.12

Site-Set		Dist. on SL (m)	Strike	App.	Strike (S-hemi)	Average	Angle b/t	Radians	True
				Spacing (m)		Strike	SL and fract.		Spacing (m)
	A14	2.84	74.00	0.35	254.00	254.00	85.00	1.48	0.35
	A15	2.965	74.00	0.13	254.00	254.00	85.00	1.48	0.12
	A16	3.06	77.00	0.10	257.00	257.00	88.00	1.54	0.09
	A18	3.42	79.00	0.36	259.00	259.00	90.00	1.57	0.36
	A19	3.72	75.00	0.30	255.00	255.00	86.00	1.50	0.30
	AVE								0.23
	STD.								0.14
	Freq.								4.33

8-3-00-47 Creek at N. end of Lodi Pt.		RDJ 13 SL Orient. =	FID 59.00	239.00					
NW 318-332	A1	0	329.00		149.00		90.00	1.57	
	A2	0.35	330.00	0.35	150.00	150.00	89.00	1.55	0.35
	A3	.38	329.00	0.03	149.00	149.00	90.00	1.57	0.03
	A4	.485	327.00	0.11	147.00	147.00	88.00	1.54	0.10
	A5	.52	328.00	0.04	148.00	148.00	89.00	1.55	0.03
	A6	.55	330.00	0.03	150.00	150.00	89.00	1.55	0.03
	A7	.575	318.00	0.02	138.00	138.00	79.00	1.38	0.02
	A8	.62	328.00	0.05	148.00	148.00	89.00	1.55	0.04
	A9	.65	325.00	0.03	145.00	145.00	86.00	1.50	0.03
	A11	.755	330.00	0.11	150.00	150.00	89.00	1.55	0.10
	A12	.765	329.00	0.01	149.00	149.00	90.00	1.57	0.01
	A13	.81	328.00	0.05	148.00	148.00	89.00	1.55	0.04
	A15	.985	326.00	0.18	146.00	146.00	87.00	1.52	0.17
	A19	1.715	332.00	0.73	152.00	152.00	87.00	1.52	0.73
	A20	1.755	332.00	0.04	152.00	152.00	87.00	1.52	0.04
	AVE								0.13
	STD.								0.20
	Freq.								7.99
ENE 74-79	A10	.70	74.00		254.00		15.00	0.26	
	A17	1.27	77.00	0.57	257.00	257.00	18.00	0.31	0.18
	A21	1.88	79.00	0.61	259.00	259.00	20.00	0.35	0.21
	A22	2.49	79.00	0.61	259.00	259.00	20.00	0.35	0.21
	AVE								0.20
	STD.								0.02
	Freq.								5.06
NS	A23	2.76	8.00						

08-03-00-48k		SL Orient. RDJ 14 lodi =	339	159.00					
ENE 66-73	a1	0.00	65.00		245.00		86.00	1.50	
	a2	0.05	69.00	0.05	249.00	249.00	90.00	1.57	0.05
	a3	0.20	71.00	0.15	251.00	251.00	88.00	1.54	0.15
	a4	0.31	73.00	0.11	253.00	253.00	86.00	1.50	0.11
	a5	0.37	70.00	0.06	250.00	250.00	89.00	1.55	0.05
	a6	0.46	70.00	0.10	250.00	250.00	89.00	1.55	0.09
	a7	0.70	66.00	0.24	246.00	246.00	87.00	1.52	0.24
	a8	0.95	70.00	0.25	250.00	250.00	89.00	1.55	0.25
	a9	1.09	68.50	0.14	248.50	248.50	89.50	1.56	0.14
	a10	1.34	68.00	0.25	248.00	248.00	89.00	1.55	0.25
	a11	1.37	70.00	0.02	250.00	250.00	89.00	1.55	0.02
	a13	1.85	70.00	0.48	250.00	250.00	89.00	1.55	0.48
	a14	2.19	70.00	0.35	250.00	250.00	89.00	1.55	0.34
	a16	2.55	68.00	0.36	248.00	248.00	89.00	1.55	0.36
	a17	2.85	68.00	0.30	248.00	248.00	89.00	1.55	0.30
	a18	3.41	72.00	0.56	252.00	252.00	87.00	1.52	0.56
	a19	3.80	70.00	0.39	250.00	250.00	89.00	1.55	0.39
	a20	3.88	69.00	0.08	249.00	249.00	90.00	1.57	0.08
	a21	4.49	71.00	0.61	251.00	251.00	88.00	1.54	0.61
	a22	6.29	68.00	1.80	248.00	248.00	89.00	1.55	1.80
	a23	6.58	69.00	0.29	249.00	249.00	90.00	1.57	0.29

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and		True Spacing (m)
							fract.	Radians	
	a24	7.03	68.00	0.45	248.00	248.00	89.00	1.55	0.45
	a25	7.43	69.50	0.40	249.50	249.50	89.50	1.56	0.40
	a26	7.75	68.00	0.32	248.00	248.00	89.00	1.55	0.32
	a27	7.95	68.00	0.20	248.00	248.00	89.00	1.55	0.20
	a28	8.22	70.00	0.27	250.00	250.00	89.00	1.55	0.27
	a29	8.55	70.00	0.33	250.00	250.00	89.00	1.55	0.33
	a30	8.70	70.00	0.15	250.00	250.00	89.00	1.55	0.15
	a31	8.80	68.00	0.10	248.00	248.00	89.00	1.55	0.10
	a32	8.92	69.00	0.12	249.00	249.00	90.00	1.57	0.12
	a33	9.00	68.00	0.08	248.00	248.00	89.00	1.55	0.08
	a34	9.15	70.00	0.15	250.00	250.00	89.00	1.55	0.15
	a36	9.62	70.00	0.47	250.00	250.00	89.00	1.55	0.47
	a37	9.98	70.00	0.36	250.00	250.00	89.00	1.55	0.36
	a38	10.20	68.00	0.22	248.00	248.00	89.00	1.55	0.22
	a39	10.43	70.00	0.23	250.00	250.00	89.00	1.55	0.23
	a40	10.66	70.00	0.23	250.00	250.00	89.00	1.55	0.23
	a41	11.04	68.00	0.38	248.00	248.00	89.00	1.55	0.38
	a42	11.12	70.00	0.08	250.00	250.00	89.00	1.55	0.08
	a43	11.36	70.00	0.24	250.00	250.00	89.00	1.55	0.24
	a44	11.44	70.00	0.08	250.00	250.00	89.00	1.55	0.08
	a45	11.63	70.00	0.19	250.00	250.00	89.00	1.55	0.19
	a46	11.96	70.00	0.33	250.00	250.00	89.00	1.55	0.33
	a47	12.70	69.00	0.74	249.00	249.00	90.00	1.57	0.74
AVE									0.30
STD.									0.29
Freq.									3.39
NS	a12	off	1.00						
NNW	a15a	2.20	348.00						
NW	a15b	2.20	319.00						
EW	a35	9.60	272.00						

8-3-00-48c RDJ 9, QD Creek At N. end if Lodi pt.									
NNE									
10-23									
	A1		23.00						
	A2	1.75	19.00						1.75
	A3	1.30	19.00						1.30
	A4	1.30	21.00						1.30
	A5	1.10	10.00						1.10
	A6	0.30	10.00						0.30
	A7	0.70	19.00						0.70
AVE									1.08
STD.									0.51
Freq.									0.93
ENE									
75-90									
	B1		75.00						
	B2	0.35	75.00						0.35
	B3	1.0	90.00						1.00
AVE									0.68
STD.									0.46
Freq.									1.48

8-3-00-51 RDJ 2 SL Orient.									
Shaw Rd Creek #1 = 109.00 289.00									
ENE									
76-82									
	A1	.14	78.00		258.00		31.00	0.54	
	A2	.335	82.00	0.20	262.00	262.00	27.00	0.47	0.09
	A3	.37	79.00	0.04	259.00	259.00	30.00	0.52	0.02
	A5	.85	76.00	0.48	256.00	256.00	33.00	0.58	0.26
	A6	1.08	81.00	0.23	261.00	261.00	28.00	0.49	0.11

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
	A7	1.28	81.00	0.20	261.00	261.00	28.00	0.49	0.09
	A10	1.61	80.00	0.33	260.00	260.00	29.00	0.51	0.16
	A11	1.78	80.00	0.17	260.00	260.00	29.00	0.51	0.08
	A12	2.77	80.00	0.99	260.00	260.00	29.00	0.51	0.48
	b1	6.00	81.00	3.23	261.00	261.00	28.00	0.49	1.52
	b2	5.26	78.00	0.74	258.00	258.00	31.00	0.54	0.38
	b3	5.15	79.00	0.11	259.00	259.00	30.00	0.52	0.05
	b4	5.10	78.00	0.05	258.00	258.00	31.00	0.54	0.03
	b6	4.96	80.00	0.14	260.00	260.00	29.00	0.51	0.07
	b8	4.41	76.00	0.55	256.00	256.00	33.00	0.58	0.30
	b10	4.34	82.00	0.07	262.00	262.00	27.00	0.47	0.03
	b11	3.67	79.00	0.67	259.00	259.00	30.00	0.52	0.34
	b12	3.50	76.00	0.17	256.00	256.00	33.00	0.58	0.09
	b13	2.98	76.00	0.52	256.00	256.00	33.00	0.58	0.28
AVE									0.24
STD.									0.35
Freq.									4.11
NS 5-11	A8	1.315	11.00		191.00		82.00	1.43	
	A9	1.465	8.00	0.15	188.00	188.00	79.00	1.38	0.15
	A13	2.82	5.00	1.36	185.00	185.00	76.00	1.33	1.31
	b7	4.44	15.00	1.62	195.00	195.00	86.00	1.50	1.62
AVE									1.03
STD.									0.78
Freq.									0.97
NNW	b9	4.34	345.00						

10-21-00-CML1 Creek N. of Cnty Rd 1 QD									
NNW		0.40	334.00						0.40
327-334		0.60	330.00						0.60
		0.20	333.00						0.20
		1.50	330.00						1.50
		1.00	331.00						1.00
		1.21	331.00						1.21
		1.80	332.00						1.80
		1.50	333.00						1.50
		1.50	329.00						1.50
		0.70	327.00						0.70
		1.20	330.00						1.20
		0.90	327.00						0.90
AVE									1.04
STD.									0.50
Freq.									0.96

10-21-00-CML2 Creek N. of Cnty Rd 1 QD									
NNW			326.00						
326-336		5.00	336.00						5.00
AVE									5.00
STD.									0.20
Freq.									
EW			82.00						
75-85		0.43	85.00						0.43
		1.30	75.00						1.30
		0.70	86.00						0.70
		0.55	85.00						0.55
		1.05	80.00						1.05
AVE									0.81
STD.									0.36
Freq.									1.24

Site-Set	Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S-hemi)	Average Strike	Angle b/t SL and fract. Radians	True Spacing (m)
10-21-00-CML3 Creek N. of Cnty Rd 1							
NNW			333.00				
329-333	1.40		332.00				1.40
	4.00		332.00				4.00
	1.20		329.00				1.20
		AVE					2.20
		STD.					1.56
		Freq.					0.45
ENE			70.00				

READING CENTER

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract. Radians	True Spacing (m)
7-18-00-20							
Bullhorn Crk.		SL =	285	105			
NNW		0.3	325		145.00	40.00	0.70
325-337		0.49	330	0.19	150.00	45.00	0.79
		0.55	332	0.06	152.00	47.00	0.82
		0.6	332	0.05	152.00	47.00	0.82
		2.47	334	1.87	154.00	49.00	0.86
		3.7	332	1.23	152.00	47.00	0.82
		3.08	337	0.62	157.00	52.00	0.91
		AVE					0.50
		STD.					0.56
		Freq.					1.99
ENE		1.6	74		254.00	31.00	0.54
74,76		3.18	76	1.58	256.00	29.00	0.51
		AVE					0.77
		STD.					0.77
		Freq.					1.31
NS		1.81	9		Not enough information to calculate spacing		
9,10		?	10				
10-20-00-rdj75							
sunset point	QD						
NS	a1	0	1				0
0-1	a3	7	0				7
	a4	10.6	0				10.6
		AVE					5.87
		STD.					5.39
		Freq.					0.17
NNE	a2	20-54	25				
EW	b1	0	89				
NNW	c1	0	327				0
326-327	c2	0.4	327				0.4
	c3	0.6	326				0.6
		AVE					0.33
		STD.					0.31
		Freq.					3.00
10-20-00-rdj76							
Bullhorn Cr k	QD						
NNW	a0		335				
331-339	a1	3.7	331				3.7
	a2	1.2	334				1.2
	a3	1.04	335				1.04
	a4	0.8	336				0.8
	a5	1	339				1
	a6	1.8	335				1.8
		AVE					1.59
		STD.					1.09
		Freq.					0.63

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi) Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
NS	b1		9					
2-9	b2	0.6	7					0.6
	b3	0.46	2					0.46
	b4	1.8	6					1.8
	b5	1.74	2					1.74
	b6	1	6					1
	b7	1.3	2					1.3
		AVE						1.15
		STD.						0.56
		Freq.						0.87

Site 19A 7-17-00-19 2 SL = 41 221									
NNW	1	0	331		151.00		70.00	1.22	
328-335	2	0.49	328	0.49	148.00	148.00	73.00	1.27	0.47
	3	0.73	331	0.24	151.00	151.00	70.00	1.22	0.23
	4	1.7	332	0.97	152.00	152.00	69.00	1.20	0.91
	6	2.08	334	0.38	154.00	154.00	67.00	1.17	0.35
	8	3.15	335	1.07	155.00	155.00	66.00	1.15	0.98
	9	4.51	329	1.36	149.00	149.00	72.00	1.26	1.29
	10	4.62	329	0.11	149.00	149.00	72.00	1.26	0.10
	11	5.72	335	1.10	155.00	155.00	66.00	1.15	1.00
	12	5.9	330	0.18	150.00	150.00	71.00	1.24	0.17
		AVE							0.61
		STD.							0.44
		Freq.							1.64
ENE	5	1.7	73						
NNE	7	2.43	15						

7-18-00-19 Buckhorn SL = 285 105									
NNW	b1	17.28	328		148.00		43.00	0.75	
328-336	b2	15.47	330	1.81	150.00	150.00	45.00	0.79	1.28
	b4	14.08	336	1.39	156.00	156.00	51.00	0.89	1.08
	b5	13.82	332	0.26	152.00	152.00	47.00	0.82	0.19
	b6	13.55	334	0.27	154.00	154.00	49.00	0.86	0.20
	b7	13.4	334	0.15	154.00	154.00	49.00	0.86	0.11
	b8	10.36	336	3.04	156.00	156.00	51.00	0.89	2.36
	b9	10.1	330	0.26	150.00	150.00	45.00	0.79	0.18
	b10	9.42	335	0.68	155.00	155.00	50.00	0.87	0.52
	b13	7.19	333	2.23	153.00	153.00	48.00	0.84	1.66
	b14	7	330	0.19	150.00	150.00	45.00	0.79	0.13
	b16	6.27	336	0.73	156.00	156.00	51.00	0.89	0.57
	b18	5.19	334	1.08	154.00	154.00	49.00	0.86	0.82
	b19	3.68	330	1.51	150.00	150.00	45.00	0.79	1.07
		AVE							0.78
		STD.							0.69
		Freq.							1.28
NNE	b11	8.54	35						
ENE	b15	6.56	70						

Site-Set		Dist. on SL (m)	Strike	App. Spacing (m)	Strike (S- Average hemi)	Average Strike	Angle b/t SL and fract.	Radians	True Spacing (m)
NS	b3	14.63	6		186.00		81.00	1.41	
4-11	b12	8.1	11	6.53	191.00	191.00	86.00	1.50	6.51
	b17	6.1	4	2.00	184.00	184.00	79.00	1.38	1.96
	b20	0.5	6	5.60	186.00	186.00	81.00	1.41	5.53
AVE									4.67
STD.									2.39
Freq.									0.21

Appendix D

Seneca Rose Diagrams

<u>Quadrangle</u>	<u>Page within appendix D</u>
Ovid	1
Reading Center	3
Dundee	3
Burdett	4
Lodi	5

OVID

OID

Reading center

Site 19a

Site 19

Site 20

RDJ 75

RDJ 76

DUNDEE

Site 8

Site 9

Site 10

Site 12

Site 13

Site 14

Site 21

Site 22

RDJ 78

Burdett

Lodi