MESOZOIC AND CENOZOIC MICROFOSSILS FROM GEOLOGIC UNITS
WITHIN THE SAN JOSE 1:100,000 QUADRANGLE, CALIFORNIA

BY

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INTRODUCTION

The geology of the San Jose 1:100,000 Quadrangle is dominated by three major fault-bounded terrane complexes of mostly Mesozoic age, each with notable differences in basement rocks, sedimentary sequences, and metamorphic history; the Franciscan Complex, the Great Valley sequence, and the Salinia terrane. The largest of these is the Franciscan Complex that includes: (1) the strongly metamorphosed clastic rocks of the Eastern belt (Jurassic Eylar Mountain and Cretaceous Burnt Hills terranes) that form the core complex of the Diablo Range; the Eastern belt is bounded on the west by the Calaveras and Madrone Springs faults and on the east by the Coast Range and Tesla-Ortigalita faults (Blake and Showalter, 1991). And (2) the Central belt, which is an amalgam of smaller terranes in an area bounded by the San Andreas fault zone to the southwest, and the Shannon, Hayward, and Silver Creek faults to the northeast. These terranes include Jurassic basalt overlain by Jurassic to Cretaceous chert and marine clastic sediments of the Bald Mountain-El Sombroso terrane that correlate with the Marin Headlands terrane; and Cretaceous basalt and oceanic limestone and chert of the Permanente terrane (Sliter and others, 1991). These Franciscan rocks are overlain by and interleaved with ophiolitic rocks correlated with the Coast Range ophiolite, a thin sliver of Jurassic or older slate and phyllite tentatively correlated with the Mariposa Slate, Jurassic to Cenozoic marine sediments of the Sierra Azul block, and Miocene and younger marine and nonmarine rocks northeast of the Sierra Azul block (McLaughlin and others, 1991a; McLaughlin and others, 1991b). All of these units are imbricated by a series of faults that include the Hooker Gulch, Soda Springs, Sierra Azul, Berrocal, and Shannon faults.

Jurassic to Cretaceous rocks assigned to the Great Valley sequence (GVS) flank the Diablo Range. To the east, the GVS structurally overlies the Diablo Range along the Coast Range and Tesla-Ortigalita faults, and consists of a basement of Jurassic Coast Range Ophiolite overlain by Jurassic and Cenozoic marine sediments (Blake and Showalter, 1991). Along the west side of the Diablo Range, the GVS consists of a narrow strip of Cretaceous and Cenozoic sediments bounded
on the east by the Calaveras and Madrone Springs faults and on the west by the Hayward and Silver Springs faults. The Salinia terrane is exposed southwest of the San Andreas fault zone in the lower left corner of the map. The terrane consists of a continental fragment with a basement of metamorphic sediments intruded by granitic rocks (Mattinson, 1978), unconformably overlain by Cretaceous and Cenozoic marine sediments.

To better understand the complex upper crustal history of this region, the National Mapping Program funded an interdisciplinary mapping project from 1988 to 1993. Essential to the project was the development of an accurate biostratigraphic framework to document the timing of tectonic events. In addition, detailed paleoenvironmental analyses were needed to interpret the latitudinal displacement of exotic terranes, to determine the depositional environment of displaced and \textit{in situ} sequences, and to document basin development. This report provides a brief age and environmental assignment for samples analyzed for microfossils (foraminifers, calcareous nannofossils, radiolarians, diatoms) during the project as well as for selected samples previously reported from the area. The compilation represents an important foundation for the geologic and paleontologic study of marine sedimentary units in the San Jose sheet.

Samples included in this report were selected based on the following criteria: (1) the presence of microfossils with age and environmental significance, (2) taxonomic identifications that were verified by curated material, illustrations, or species associations in taxonomic lists, and (3) detailed locality information identified on 7.5 minute quadrangles. Barren samples or assemblages lacking precise locality information are not included. Reports include those analyzed for foraminifers, calcareous nannofossils, and radiolarians. All samples analyzed for diatoms were barren. Fossil assemblages from previous studies were reviewed by the appropriate specialist to insure age and environmental consistency.

Appendix A lists the samples by laboratory and/or field number cross-referenced to the map number on Plate 1. Geologic data for each sample identified by map number is provided in Appendix B. The data format includes a brief description of the lithology and paleontology for each sample as well as locality information, the author and year of initial or subsequent analysis,
the collector, and one or more references. The references include unpublished USGS internal reports as well as other published and unpublished sources. Samples identified by foraminifers are followed by a notation identifying the reference group, i.e., (P) planktic species, (B) benthic species, and (L) larger benthic species. Sample number lists the original field number of the collector preceded by an Mf or MR number for samples curated in the Menlo Park USGS catalog system or a University of California locality number (numbers beginning with an A or B, i.e., B-4386).

Plate 1 shows the sample localities plotted by Cenozoic, Cretaceous, or Jurassic age. The symbol represents the youngest age at each locality. In addition, the microfossil group recovered from each locality is identified by letter code for foraminifers (F), calcareous nannofossils (N), and radiolarians (R). A single map number may include samples examined for more than one fossil group at one locality or closely spaced localities as identified in Appendix A. The spatial distribution pattern shows (1) Cenozoic foraminifers reported from the Salinia terrane southwest of the San Andreas fault zone in the lower left corner of Plate 1 and from overlap deposits both on the Franciscan Complex northeast of the San Andreas fault zone in the lower left corner, and from the GVS along the west side of the Diablo Range near the center of the map, (2) Cenozoic calcareous nannofossils from the Salinia terrane and from overlap deposits on the Franciscan Complex northeast of the San Andreas fault zone, (3) Cretaceous foraminifers in the Permanente terrane, and the GVS along the eastern flank of the Diablo Range, and (4) Mesozoic radiolarians in the Franciscan Complex northeast of the San Andreas fault zone and the Diablo Range. Once again, the locality distribution is not all inclusive but represents either areas of selected sampling or samples that contained diagnostic specimens. Thus, nondiagnostic, or poorly preserved microfossil assemblages known to occur in some areas, such as Cretaceous foraminifers, calcareous nannofossils, and radiolarians from the GVS, or benthic foraminifers from Cenozoic deposits overlapping the GVS, are not represented in this report.
AGE AND ENVIRONMENTAL INTERPRETATION

Cenozoic Foraminifers and Calcareous Nannofossils

Cenozoic benthic foraminiferal age interpretations (Figs. 1-2) are based on the California benthic foraminiferal zonations of Kleinpell (1938) and Mallory (1959) with modifications as proposed by Almgren and others (1988), McDougall (1988, 1989), and Blake (1991). Stage names follow the modifications proposed by McDougall (1980, 1988, 1989, 1993, unpublished data) for the Paleocene and Eocene, and by Blake (1991) for the late Neogene. Zonation of the Oligocene and Miocene primarily follows Kleinpell (1938) with modifications suggested by Addicott and others (1980) and McDougall (1983, unpublished data). Correlation of the benthic foraminiferal stages and zones to (1) the international time scale (Berggren and others, 1985; Aubrey and others, 1988), (2) planktic foraminiferal zones (Blow, 1969, 1979; Berggren, 1972), and (3) calcareous nannofossil zones (Bukry, 1973, 1975; Okada and Bukry, 1980) is summarized in McDougall (1988, 1989) and Bartow (1992). Where possible, benthic foraminiferal age interpretations are given in terms of the correlative planktic foraminiferal zones or calcareous nannofossil zones.

Cenozoic environmental interpretations are based on an overview of California benthic foraminifers by Ingle (1980), a study of Atlantic Paleogene benthic foraminifers by Tjalsma and Lohmann (1983), and a study of cosmopolitan deep-water benthic foraminifers by van Morkhoven and others (1986). The paleoenvironmental analysis of much of the benthic foraminiferal data has been previously discussed by McDougall (1988, 1989).

Cretaceous Foraminifers

Cretaceous planktic foraminifers are dated according to the biozonation modified from Sliter (1989) for whole specimens as well as those examined in thin section (Fig. 3).
Modifications include calibration to the geochronologic scale of Harland and others (1990) and revision of the Aptian and older planktic foraminiferal datums based on new data from Europe (e.g., Coccioni and others, 1992; Premoli Silva, pers. comm., 1993). Thus, the top of the *Globigerinelloides blowi* Zone is placed in the long Cretaceous Normal Polarity Superchron above Reversed-Polarity Chron M0 in the early Aptian (Sliter and Leckie, 1993). The base of the *G. blowi* Zone, however, that previously was restricted to the Aptian is now correlated with Normal-Polarity Chron CM2 in the Barremian. Zonal boundaries below this level presently are considered tentative.

Cretaceous benthic foraminifers in the Great Valley sequence are correlated according to the zonations of Goudkoff (1945) modified by Almgren (1986) and Berry (1974). The zones and their age assignments are shown in Figure 4. Cretaceous depositional environments are based primarily on the scheme by Sliter and Baker (1972) with water depths modified according to Sliter (1985).

**Radiolarians**

The Jurassic and Cretaceous radiolarian assemblage zones described by Murchey (1984) and Murchey and Jones (1984) are used to correlate samples from the Franciscan Complex. Figure 5 shows a recalibration of Murchey's (1984) chronostratigraphic ranges. The ranges are based on correlation with radiolarian zonations calibrated by associated ammonites (Baumgartner, 1984; Pessagno and others, 1987; O'Dogherty and others, 1987; Carter and others, 1988).

In the field of radiolarian biostratigraphy, an unresolved difference of opinion exists regarding the accuracy of chronostratigraphic ranges assigned to Middle and Late Jurassic radiolarian assemblages. In this report we utilize O'Dogherty and others (1987) recalibration of Baumgartner's (1984) zonation. This recalibration apparently is compatible with Pessagno and others (1987) chronostratigraphic range assignments for Middle Jurassic faunas from eastern Oregon but is incompatible with their range assignments for faunas associated with Jurassic ophiolites in California. Pessagno and others (1987) interpret the ophiolite faunas as totally post-
dating the eastern Oregon faunas whereas Baumgartner's zonation requires some stratigraphic overlap between the California ophiolite and eastern Oregon arc strata.

Herein we assign the following ages to the radiolarian zones in the Franciscan Complex: MH-1 is late Pliensbachian to lower or middle Toarcian; MH-2 is late Toarcian and Aalenian; MH-3 is Bajocian; MH-4 is Bathonian, Callovian, and possibly early Oxfordian. A widespread recrystallized zone found throughout the Central Belt of the Franciscan Complex marks a biostratigraphic gap between MH-4 and MH-5. Assemblage MH-5, sensu stricto (concurrent range zone of Archaeodictyomitra apiaria, Acanthocircus dicranacanthos, and Cecrops septemporatus), is Valanginian to Hauterivian in age, but samples lacking C. septemporatus (MH-5 sensu lato) may be older. Assemblage MH-6 is Barremian to Albian in age and assemblage MH-7 is late Albian to early Cenomanian. A single sample collected from chert associated with pelagic limestone in the Los Gatos quadrangle contains Dictyomitra koslovae and is late Turonian or Coniacian in age (Murchey and Jones, 1984).

ACKNOWLEDGMENTS

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Osbun, Erik, 1975, Geology of the Sveadal area, southern Santa Cruz Mountains, California: San Jose, California State University, M.S. thesis, 156 p.

Pessagno, E.A., Jr., Blome, C.D., Carter, E.S., MacLeod, Norman, Whalen, P.A., and Yeh, K.-Y., 1987, Preliminary radiolarian zonation for the Jurassic of North America, in


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Figure 1. Correlation of California Paleogene benthic foraminiferal stages to the international time scale of Berggren and others (1985) and Aubry and others (1988), are shown for the planktic microfossil zones of Blow (1969, 1979) and Berggren (1972) in column 1, Bukry (1973, 1975) and Okada and Bukry (1980) in column 2, and Martini (1970, 1971) in column 3. Emended benthic foraminiferal stages of McDougall (1988, 1989, 1991, 1993 and unpublished data) are shown in column 4, and emended benthic foraminiferal stages and zones of Almgren and others (1988) are shown in columns 5 and 6. Many of these correlations are summarized by Bartow (1992).
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Figure 2. Correlation of California Neogene benthic foraminiferal stages (column 3) to the international time scale of Berggren and others (1985) are shown for the planktic microfossil zones of Blow (1969, 1979) and Berggren (1972) in column 1, and Bukry (1973, 1975) and Okada and Bukry (1980) in column 2. Revision and correlation of the late Neogene benthic foraminiferal stages follows Blake (1991). Most of the correlations are summarized by Bartow (1992).
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**Fig. 3** Zonation for Cretaceous planktic foraminifers (modified from Sliter, 1989). Magneto-geochronology from Harland and others (1990). KS= Cretaceous zone notation. FO= first occurrence; LO= last occurrence.
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Fig. 4  Cretaceous zone assignments for benthic foraminifers from the Great Valley sequence of California after Goudkoff (1945) for zones G through C modified by Almgren (1986) and from Berry (1974) for zones H and older.
Figure 5. Ages of radiolarian assemblages in the Franciscan Complex of California and their correlation with selected zonations from Europe and Oregon. Recrystallized intervals are stippled.
Sequential laboratory or field number tied to map number on Plate 1 and Appendix B

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## APPENDIX B

**Geologic and paleontologic data associated with map numbers on Plate 1.**

### Sample Information

1. Formation name
2. USGS and/or field number
3. Locality information
4. "
5. Lithology
6. Associated fossils
7. Period/Epoch
8. Stage
9. Zone
10. Fossils used for dating
11. Paleontologist, year
12. Collector, year
13. Depositional environment
14. Reference

Several lithologic units listed under Formation are used in an informal sense and are identified by quotation marks. These units and their sources are:
- "Cretaceous Shale" (Ku1) of McLaughlin and others (1988)
- "Larios Canyon Sandstone" of Carter (1970)
- "Little Arthur Creek Formation" of McLaughlin (1973)
- "Loma Prieta ophiolite" of McLaughlin and others (1988)
- "Marine sandstone and shale" (Te2) of McLaughlin and others (1988)
- "Marine shale and sandstone of Highland Way" (Tme) of McLaughlin and others (1988)
- "Mottled mudstone of Mt. Chual" (Te1) of McLaughlin and others (1988)
- "Mt. Madonna Formation" of McLaughlin (1973)
- "Mudstone of Nesbit Ridge" or "mudstone of Bolado Park" of Frames (1955)

### Map Number

1. Franciscan Complex
2. S84-253 to S84-256
3. Los Gatos 7.5' Quad., Lat. 37° 13.00' N, Long. 121° 59.25' W, exposed road
4. cut on the western side of Highway 17 near Los Gatos
5. Calera Limestone; medium-grey, heavily-veined limestone and black chert
6.
7. Cretaceous
8. Aptian to Albian
9. *Globigerinelloides algerianus* Zone to *Rotalipora appenninica* Zone
10. Foraminifers (P)
11. Sliter, W.V., 1984
12. Sliter, W.V., 1984
13. Bathyal
1. Franciscan Complex
2. S84-60
3. Los Gatos 7.5' Quad., Lat. 37° 12.30' N, Long. 121° 58.33' W, 4m section in a
   small abandoned quarry on the eastern hillside of St. Josephs Hill near Los Gatos
5. Calera Limestone; recrystallized, medium-grey, heavily-veined limestone and chert
6.
7. Cretaceous
8. Cenomanian
9. *Rotalipora cushmani* Zone; *R. greenhornensis* Subzone
11. Foraminifers (P)
12. Sliter, W.V., 1984
13. Bathyal

1. Franciscan Complex
2. S91-23 to 27
3. Los Gatos 7.5' Quad., Lat. 37° 12' 33" N, Long. 121° 57' 46" W,
   several abandoned quarries on western hillside east of St. Josephs Hill
5. Calera Limestone; light-grey limestone and interbedded medium-grey chert
6. Benthic foraminifers
7. Cretaceous
8. Aptian? to Cenomanian
9. *Hedbergella trocoidea* Zone? to *Rotalipora cushmani* Zone
10. Foraminifers (P)
11. Sliter, W.V., 1992
13. Bathyal
14. Internal report

1. Franciscan Complex
2. MR8394 (MSJ -163-90A)
3. Los Gatos 7.5' Quad., Lat. 37° 11' 42" N, Long. 121° 57' 52" W,
   near Priest Rock
5. Chert, bedded, metachert lens
6.
7. Jurassic
8. Toarcian or Aalenian to Bajocian?
10. Radiolarians
11. Murchey, B., 1993
12. McLaughlin, R.J., 1990
13. Deep marine
14. Internal report

1. Franciscan Complex
2. MR8396 (MSJ -163-90B)
3. Los Gatos 7.5' Quad., Lat. 37° 11' 42" N, Long. 121° 57' 52" W
4.
5. Chert, bedded, metachert lens in mélange
6.
7. Jurassic, Middle to late?
8. Bajocian to Callovian or younger
1. Franciscan Complex
2. MR8403 (MSJ -164-90)
3. Los Gatos 7.5' Quad., Lat. 37° 11' 43" N, Long. 121° 57' 55" W, near Priest Rock
4. Chert, bedded
5. Jurassic, Middle
6. Bajocian or Bathonian?
8. Radiolarians
9. Murchey, B., 1993
10. McLaughlin, R.J., 1990
11. Deep marine
12. Internal report

4
1. Franciscan Complex
2. MR8405 (MSJ -165-90)
3. Los Gatos 7.5' Quad., Lat. 37° 11' 40" N, Long. 121° 57' 55" W
4. Chert, bedded; lens in mélangé
5. Jurassic, late Middle
6. Bathonian or Callovian
8. Radiolarians
9. Murchey, B., 1993
10. McLaughlin, R.J., 1990
11. Deep marine
12. Internal report

5
1. Franciscan Complex
2. MR8392 (MSJ -172-90)
3. Los Gatos 7.5' Quad., Lat. 37° 11' 22" N, Long. 121° 57' 07" W
4. Chert, clast in gouged argillite along serpentinite body
5. Jurassic, late Middle
6. Bathonian to Callovian?
8. Radiolarians
9. Murchey, B., 1993
10. McLaughlin, R.J., 1990
11. Deep marine
12. Internal report

5
1. Franciscan Complex
2. MR8398 (MSJ -171-90A)
3. Los Gatos 7.5' Quad., Lat. 37° 11' 22" N, Long. 121° 57' 09" W
4. Chert, in olistolith mélange
5. Jurassic, Late or Cretaceous, Early
6. Oxfordian to Haueterivian
8. Radiolarians
9. Murchey, B., 1993
10. McLaughlin, R.J., 1990
11. Deep marine
12. Internal report

6 1. Franciscan Complex
2. MR8393 (MSJ -174-90A)
3. Los Gatos 7.5' Quad., Lat. 37° 11' 22" N, Long. 121° 57' 03" W
4. Chert, bedded
5. Mesozoic
6. Undetermined
7. Radiolarians
8. Murchey, B., 1993
9. McLaughlin, R.J., 1990
10. Deep marine
11. Internal report

7 1. Vaqueros Formation or San Lorenzo Formation
2. Mf7762 (MSJ-252-90)
3. Los Gatos 7.5' Quad., Lat. 37° 10' 37" N, Long. 121° 59' 40" W
4. Shale, carbonaceous
5. Unknown
6. Foraminifers (B)
7. McDougall, K., 1990
8. McLaughlin, R.J., 1990
9. Internal report

8 1. Vaqueros Formation or Butano Formation
2. Mf7678 (90CB2802)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 35" N, Long. 121° 59' 10" W, north side of Mountain Charlie Road
4. Shale, with bedded sandstone
5. Fish debris
6. Unknown
7. Foraminifers (B)
8. McDougall, K. 1990
9. McLaughlin, R.J., 1990

28
13. Unknown
14. Internal report

9
1. San Lorenzo Formation
2. Mf7690 (90CB2821)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 24" N, Long. 121° 57' 46" W
4. Mudstone and shale
5. Planktic foraminifers
6. Eocene, late? through Oligocene
7. Foraminifers (B)
8.
9.
10. McDougall, K., 1990
12. Internal report

10
1. San Lorenzo Formation, Rices Mudstone Member
2. Mf1404 (68CB126)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 00" N, Long. 121° 59' 34" W
4. Mudstone
5. Eocene, late through Oligocene
6. Probably Refugian or Zemorrian, early
7. Foraminifers (B)
8.
9.
12. Internal report

10
1. San Lorenzo Formation, Rices Mudstone Member
2. Mf1405 (68CB131)
3. Los Gatos 7.5' Quad., Lat. 37° 07' 58" N, Long. 121° 59' 36" W
4. Mudstone
5. Probably Oligocene
6. Probably Zemorrian
7. Foraminifers (B)
8.
9.
12. Internal report

11
1. San Lorenzo Formation
2. B-4386
3. Los Gatos 7.5' Quad., Lat. 37° 07' 35" N, Long. 121° 58' 57" W
4. Shale, dark-gray
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<td>Mudstone, thin to medium bedded, olive-gray to dusky-yellowish-brown, organic</td>
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<td>Siltstone, dark-gray, micaceous</td>
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15 1. Lambert Shale
2. JC61-5
3. Laurel 7.5' Quad., Lat. 37° 06' 59" N, Long. 121° 59' 48" W
4.
5. Shale
6.
7. Miocene
8. Saucesian
9. *Uvigerinella obesa* Zone
10. Foraminifers (B)
12. Clark, J.C., 1966
13. Upper middle-bathyal biofacies (500-1500 m)
14. Clark (1966); Brabb, Clark and Throckmorton (1977); McDougall (1991)

15 1. Lambert Shale
2. Mf1406 (68CB155)
3. Laurel 7.5' Quad., Lat. 37° 07' 00" N, Long. 121° 59' 48" W
4.
5.
6.
7. Oligocene, late through Miocene, early
8. Saucesian
9.
10. Foraminifers (B)
13.
14. Internal report

15 1. Lambert Shale
2. Mf1407 (68CB161)
3. Laurel 7.5' Quad., Lat. 37° 06' 57" N, Long. 121° 59' 47" W
4.
5.
6.
7. Probably Oligocene, late through Miocene, early
8. Probably Saucesian
9.
10. Foraminifers (B)
13.
14. Internal report

15 1. Lambert Shale
2. Mf1408 (68CB162)
3. Laurel 7.5' Quad., Lat. 37° 06' 55" N, Long. 121° 59' 47" W
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7. Probably Oligocene, late through Miocene, early
8. Probably Saucesian
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10. Foraminifers (B)
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14. Internal report

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<td>6.</td>
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<td>4.</td>
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<td>6.</td>
<td>Zemonian, early</td>
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19 1. Vaqueros Formation
2. B-4393
3. Laurel 7.5' Quad., Lat. 37° 06' 53" N, Long. 121° 58' 25" W
4. Shale, dark-gray
5. Oligocene
6. Foraminifers (B)
7. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969
8. Outer neritic biofacies

20 1. Vaqueros Formation
2. B-4394
3. Laurel 7.5' Quad., Lat. 37° 06' 52" N, Long. 121° 58' 24" W
4. Shale, dark-gray
5. Oligocene
6. Foraminifers (B)
7. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969
8. Outer neritic biofacies

21 1. Butano Formation
2. B-4384
3. Laurel 7.5' Quad., Lat. 37° 07' 28" N, Long. 121° 57' 53" W
4. Shale, brown
5. Eocene
6. Foraminifers (B)
7. Narizian, late
8. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969
9. Outer neritic to upper bathyal biofacies

22 1. Butano Formation
2. B-4385
3. Laurel 7.5' Quad., Lat. 37° 07' 25" N, Long. 121° 57' 48" W
4. Shale, brown
5. Eocene
6. Narizian, late
7. Foraminifers (B)
8. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969
9. Outer neritic to upper bathyal biofacies
10. Foraminifers (B)  
11. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969  
12. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969  
13. Outer neritic to upper bathyal biofacies  

22 1. Butano Formation?  
2. B-7130  
3. Laurel 7.5' Quad., Lat. 37° 07' 09" N, Long. 121° 57' 34" W  
4.  
5. Sandstone, strongly bedded, glauconitic  
6. Planktic foraminifers  
7. Eocene  
8. Narizian  
9.  
10. Foraminifers (B)  
13. Bathyal biofacies  

23 1. San Lorenzo Formation, Twobar Shale Member  
2. Mf7660 (89CB2761)  
3. Laurel 7.5' Quad, Lat. 37° 07' 13" N, Long. 121° 57' 30" W  
4.  
5. Shale  
6.  
7. Eocene, late  
8. Narizian, late  
9.  
10. Foraminifers (B)  
11. McDougall, K., 1989  
13. Neritic biofacies (0-150 m)  

24 1. San Lorenzo Formation  
2. B-4387  
3. Laurel 7.5' Quad., Lat. 37° 07' 07" N, Long. 121° 57' 37" W  
4.  
5. Shale, dark-gray  
6.  
7. Oligocene  
8. Zemorrian through Saucesian, early  
9.  
10. Foraminifers (B)  
11. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969  
12. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969  
13. Bathyal biofacies  

25 1. San Lorenzo Formation  
2. B-4388  
3. Laurel 7.5' Quad., Lat. 37° 07' 03" N, Long. 121° 57' 38" W,
4. 175 feet stratigraphically above B-4387
5. Shale, dark-gray
6.
7. Oligocene
8. Zemorrian through Saucesian, early
9.
10. Foraminifers (B)
11. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969
12. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969
13. Bathyal biofacies

26 1. Vaqueros Formation
2. B-4389
3. Laurel 7.5' Quad., Lat. 37° 06' 43" N, Long. 121° 57' 38" W
4.
5. Shale, dark-gray
6.
7. Unknown
8.
9.
10. Foraminifers (B)
11. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969
12. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969
13.

26 1. Vaqueros Formation
2. B-4390
3. Laurel 7.5' Quad., Lat. 37° 06' 40" N, Long. 121° 57' 37" W
4.
5. Siltstone, dark-gray
6.
7. Oligocene
8. Zemorrian, early
9.
10. Foraminifers (B)
11. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969
12. Fairchild, W.W., Wesendunk, P.R., and Weaver, D.W., 1969
13. Outer neritic biofacies

27 1. San Lorenzo Formation, Rices Mudstone Member
2. Mf7675 (90CB2792)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 05" N, Long. 121° 57' 05" W
4.
5. Mudstone
6.
7. Oligocene, early
8. Zemorrian
9.
10. Foraminifers (B)
11. McDougall, K., 1990
13. Upper bathyal biofacies (150-500 m)
14. Internal report

28 1. San Lorenzo Formation, Rices Mudstone Member
2. Mf7676 (90CB2801)
3. Los Gatos 7.5' Quad., Lat. 37° 07' 60'' N, Long. 121° 56' 43'' W
4. Mudstone
5. Diatoms, radiolarians, echinoid spines and fish debris
6. Oligocene, early
7. Zemorrian, early
8. Foraminifers (B)
11. Upper bathyal biofacies (150-500 m)
12. Internal report

29 1. San Lorenzo Formation, Rices Mudstone Member
2. Mf7647 (89CB2574)
3. Laurel 7.5' Quad, Lat. 37° 07' 07'' N, Long. 121° 56' 39'' W
4. Mudstone
5. Diatoms
6. Oligocene, early
7. Zemorrian, early
8. Uvigerina gallowayi Zone
9. Foraminifers (B)
10. McDougall, K., 1989
12. Upper middle-bathyal biofacies (500-1500 m)
13. Internal report; McDougall (1991)

30 1. San Lorenzo Formation
2. Mf7646 (89CB2573)
3. Laurel 7.5' Quad, Lat. 37° 07' 09'' N, Long. 121° 56' 30'' W
4. Mudstone, thin-bedded with minor sandstone
5. Diatoms
6. Oligocene, early
7. Zemorrian, early
8. Uvigerina gallowayi Zone
9. Foraminifers (B)
10. McDougall, K., 1989
12. Upper middle-bathyal biofacies (500-1500 m)
13. Internal report; McDougall (1991)

31 1. Equivalent to "Mottled mudstone of Mt. Chual" (Te1)
2. Mf1312 (69CB581)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 38'' N, Long. 121° 54' 52'' W
4. 36
5. Sandstone and shale
6. Radiolaria and planktic foraminifers
7. Eocene, probably early
8.
9.
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)
14. Internal report

32 1. Equivalent to "Mottled mudstone of Mt. Chual" (Te1)
2. Mf1313 (69CB583)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 52" N, Long. 121° 54' 34" W
4.
5. Mudstone, olive-gray
6.
7. Eocene, early
8.
9.
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)
14. Internal report

32 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2264 (ELB-2-50-2)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 60" N, Long. 121° 54' 29" W,
4. approximately 250 feet S. 30° east of Mf2263 (ELB 2-51-1)
5. Mudstone
6. Planktic foraminifers
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P6b to P9
10. Foraminifers (B)
11. McDougall, K., 1990
13. Lower bathyal to abyssal biofacies (≥2000 m)
14. Internal report

1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2264 (ELB-2-50-2)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 60" N, Long. 121° 54' 29" W,
4. approximately 250 feet S. 30° east of Mf2263 (ELB 2-51-1)
5. Mudstone
6. Benthic foraminifers
7. Eocene, early
8.
9. P7 to P8
10. Foraminifers (P)
11. Poore, R., 1974
13.
14. Internal report

32 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7681 (MSJ-8-90)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 60" N, Long. 121° 54' 29" W,
4. sample corresponds to Mf2264 (ELB 2-50-2) and Mf2263 (ELB 2-51-1)
5. Shale, black
6. Planktic foraminifers?
7. Paleocene to Eocene
8.
9.
10. Foraminifers (B)
11. McDougall, K., 1990
13. Lower bathyal to abyssal biofacies (≥ 2000 m)
14. Internal report

33 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2263 (ELB-2-51-1)
3. Los Gatos 7.5' Quad., Lat. 37° 09' 03" N, Long. 121° 54' 37" W
4.
5. Mudstone
6. Planktic foraminifers
7. Unknown
8.
9.
10. Foraminifers (B)
11. McDougall, K., 1990
13. Lower bathyal to abyssal biofacies (≥2000 m)
14. Internal report

1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2263 (ELB-2-51-1)
3. Los Gatos 7.5' Quad., Lat. 37° 09' 03" N, Long. 121° 54' 37" W
4.
5. Mudstone
6. Benthic foraminifers
7. Paleocene, late to Eocene, early
8.
9. P4 to P7
10. Foraminifers (B)
11. Poore, R., 1974
13.
14. Internal report

33 1. Equivalent to "Mottled mudstone of Mt. Chual" (Te1)
2. Mf1314 (69CB584)
3. Los Gatos 7.5' Quad., Lat. 37° 09' 03" N, Long. 121° 54' 36" W
4.
5. Mudstone, olive-gray
6. Planktic foraminifers
7. Eocene, early
8.
9.
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)
14. Internal report

33 1. Unnamed early (?) Eocene strata
2. Mf7682 (MSJ 6-90)
3. Los Gatos 7.5' Quad., Lat. 37° 09' 05" N, Long. 121° 54' 37" W
4.
5. Shale, black
6. Planktic foraminifers
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zone P8
10. Foraminifers (B)
11. McDougall, K., 1990
12. McLaughlin, R.J., 1990
13. Lower bathyal to abyssal biofacies (≥2000 m)
14. Internal report

34 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2262 (ELB-2-5-6)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 57" N, Long. 121° 53' 43" W,
4. taken along dirt road 450 feet south of BM3290
5. Mudstone
6. Planktic foraminifers and ostracodes
7. Probably Eocene
8.
9.
10. Foraminifers (B)
11. McDougall, K., 1990
13. Unknown
14. Internal report

1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2262 (ELB-2-5-6)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 57" N, Long. 121° 53' 43" W,
4. taken along dirt road 450 feet south of BM3290
5. Mudstone
6. Benthic foraminifers and ostracodes
7. Eocene, early
8.
9. P7 to P8
10. Foraminifers (P)
11. Poore, R., 1974
13.
14. Internal report

39
35 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2265 (ELB-2-35-7)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 14" N, Long. 121° 53' 48" W,
4. approximately 800 feet east of hill 2793, 40 feet south of road
5. Mudstone
6. Planktic foraminifers
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P7 to P9
10. Foraminifers (B)
11. McDougall, K., 1990
13. Bathyal to abyssal biofacies
14. Internal report

36 1. Unnamed marine sandstone and shale northeast of the San Andreas Fault
2. Mf7692 (MSJ-125-90)
3. Los Gatos 7.5' Quad., Lat. 37° 08' 04" N, Long. 121° 53' 57" W
4. Shale, hard, carbonaceous, locally calcareous
5. Tertiary?
6.
7. Foraminifers (B)
8. McDougall, K., 1990
9. McLaughlin, R.J., 1990
10. Internal report

37 1. Unknown
2. Mf7668 (MSJ-121-89)
3. Los Gatos 7.5' Quad., Lat. 37° 07' 58" N, Long. 121° 54' 36" W
4. Shale, micaceous, carbonaceous
5. Benthic and planktic foraminifers
6. Eocene, early
8. CP11
9. Calcareous nannofossils
11. McLaughlin, R.J., 1989
12. Internal report

1. Unknown
2. Mf7668 (MSJ-121-89)
3. Los Gatos 7.5' Quad., Lat. 37° 07' 58" N, Long. 121° 54' 36" W
4. Shale, micaceous, carbonaceous
5. Planktic foraminifers and calcareous nannofossils
6. Eocene, early
7. Penutian
8. Foraminifers (B)
9. McDougall, K., 1989
10. McLaughlin, R.J., 1989
11. Bathyal, probably upper middle-bathyal biofacies (500-1500 m)
12. Internal report

38 1. Unnamed unit
2. Mf1311 (69CB571)
3. Los Gatos 7.5' Quad., Lat. 37° 07' 53" N, Long. 121° 54' 09" W
4. Shale
5. Radiolarians
6. Probably Cretaceous or Paleocene, possibly former
7. Foraminifers (B)
8. "Mottled mudstone of Mt. Chual" (Te1)
11. Lower bathyal to abyssal biofacies (≥2000 m)
12. Internal report; McDougall (1991)
1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2267 (ELB-2-21-3)
3. Laurel 7.5' Quad., Lat. 37° 06' 42" N, Long. 121° 54' 02" W
4.
5. Mudstone
6. Radiolarians
7. Tertiary, early
8.
9.
10. Foraminifers (B)
11. McDougall, K., 1989
13. Lower bathyal to abyssal biofacies (≥2000 m)

1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7663 (MSJ-124-89)
3. Laurel 7.5' Quad., Lat. 37° 06' 18" N, Long. 121° 53' 56" W
4.
5. Mudstone, mottled
6. Planktic foraminifers (fragments)
7. Tertiary, early
8.
9.
10. Foraminifers (B)
11. McDougall, K., 1989
12. McLaughlin, R.J., 1989
13.

1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7665 (MSJ-125-89-2)
3. Laurel 7.5' Quad., Lat. 37° 06' 16" N, Long. 121° 53' 56" W
4.
5. Mudstone, greenish-gray
6. Planktic foraminifers (fragments)
7. Probably Eocene, early
8. Probably Penutian
9.
10. Foraminifers (B)
11. McDougall, K., 1989
12. McLaughlin, R.J., 1989
13.

1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7664 (MSJ-152-89-1)
3. Laurel 7.5' Quad., Lat. 37° 06' 16" N, Long. 121° 53' 56" W
4.
5. Mudstone
6. Planktic and benthic foraminifers
7. Eocene, early
8.
9. CP11
10. Calcareous nannofossils
12. McLaughlin, R.J., 1989
13. Internal report; McDougall (1991)

43
1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7666 (MSJ-125-89-1)
3. Laurel 7.5' Quad., Lat. 37° 06' 16" N, Long. 121° 53' 56" W
4. Mudstone
5. Planktic foraminifers, calcareous nannofossils
6. Eocene, early
7. Penutian
8. Equivalent to planktic foraminiferal zones P7 through P9
9. Foraminifers (B)
10. McDougall, K., 1989
11. McLaughlin, R.J., 1989
12. Bathyal biofacies (150-2000+ m)
13. Internal report; McDougall (1991)

43
1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7666 (MSJ-126-89-A)
3. Laurel 7.5' Quad., Lat. 37° 06' 12" N, Long. 121° 53' 52" W
4. Mudstone, greenish-gray
5. Planktic and benthic foraminifers
6. Eocene, early
7. Penutian
8. Equivalent to planktic foraminiferal zones P7 through P9
9. Foraminifers (B)
10. McDougall, K., 1989
11. McLaughlin, R.J., 1989
12. Lower bathyal to abyssal biofacies (≥ 2000 m)
13. Internal report; McDougall (1991)
1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7667 (MSJ-126-89-B)
3. Laurel 7.5' Quad., Lat. 37° 06' 12" N., Long. 121° 53' 52" W
4. 
5. Shale, dark-gray, hard
6. 
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P7 through P9
10. Foraminifers (B)
11. McDougall, K., 1989
12. McLaughlin, R.J., 1989
13. Lower bathyal to abyssal biofacies (> 2000 m)

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1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2268 (ELB-13-1)
3. Laurel 7.5' Quad., Lat. 37° 06' 15" N, Long. 121° 53' 33" W
4. 
5. Mudstone
6. Planktic foraminifers
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P8 to P9, probably P9
10. Foraminifers (B)
11. McDougall, K., 1989
13. Lower bathyal to abyssal biofacies (≥2000 m)

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1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2269 (ELB-2-14-1)
3. Laurel 7.5' Quad., Lat. 37° 06' 21" N, Long. 121° 53' 22" W
4. 
5. Mudstone
6. Planktic foraminifers, ostracodes and echinoid spines
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P8 to P10
1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2270 (ELB-2-16-5)
3. Laurel 7.5' Quad., Lat. 37° 06' 21" N, Long. 121° 53' 19" W
4.
5. Mudstone
6. Benthic foraminifers
7. Eocene, early
8.
9. P7 to P8
10. Foraminifers (P)
11. McDougall, K., 1974
13. Lower bathyal to abyssal biofacies (≥2000 m)
4.
5. Mudstone
6. Planktic foraminifers
7. Tertiary, early
8.
9.
10. Foraminifers (B)
11. McDougall, K., 1974
13. Bathyal, probably lower bathyal biofacies

1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2271 (ELB-2-15-1)
3. Laurel 7.5' Quad., Lat. 37° 06' 15" N, Long. 121° 53' 03" W
4.
5. Mudstone
6. Benthic foraminifers
7. Paleocene, late to Eocene, early
8.
9. P5 to P8
10. Foraminifers (P)
11. Poore, R., 1974
13.

46

1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2272 (ELB-2-8-2)
3. Laurel 7.5' Quad., Lat. 37° 06' 15" N, Long. 121° 52' 49" W
4.
5. Mudstone
6. Planktic foraminifers, ostracodes and echinoid spines
7. Early Eocene
8. Penutian
9. Equivalent to planktic foraminiferal zones P8 to P9
10. Foraminifers (B)
11. McDougall, K., 1974
13. Lower bathyal to abyssal biofacies (≥2000 m)

46
1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7658 (MSJ-82-89)
3. Laurel 7.5' Quad., Lat. 37° 06' 16" N, Long. 121° 52' 53" W,
4. 1200 ft. east of BM2375
5. Mudstone, mottled red and green
6. Planktic and benthic foraminifers, echinoid spines
7. Eocene, early to middle
8.
9. CP12
10. Calcareous nannofossils
12. McLaughlin, R.J., 1989
13.

46
1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7658 (MSJ-82-89)
3. Laurel 7.5' Quad., Lat. 37° 06' 16" N, Long. 121° 52' 53" W,
4. 1200 ft. east of BM2375
5. Mudstone, mottled red and green
6. Planktic and benthic foraminifers, echinoid spines
7. Eocene, early to middle
8.
9. CP12
10. Calcareous nannofossils
12. McLaughlin, R.J., 1989
13.

47
1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7658 (MSJ-82-89)
3. Laurel 7.5' Quad., Lat. 37° 06' 16" N, Long. 121° 52' 53" W,
4. 1200 ft. east of BM2375
5. Mudstone, mottled red and green
6. Planktic and benthic foraminifers, echinoid spines
7. Eocene, early to middle
8.
9. CP12
10. Calcareous nannofossils
12. McLaughlin, R.J., 1989
13.
7. Paleocene, late to Eocene, early
8.
9. P4 to P8
10. Foraminifers (P)
11. Poore, R., 1974
13.

47 1. "Mottled mudstone of Mt. Chual" (Te₁)
2. Mf2274 (ELB-2-9-2)
3. Laurel 7.5' Quad., Lat. 37° 06' 13" N, Long. 121° 52' 57" W
4.
5. Mudstone
6. Planktic foraminifers, ostracodes
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P8 to P9
10. Foraminifers (B)
11. McDougall, K., 1974
13. Lower bathyal to abyssal biofacies (≥2000 m)

1. "Mottled mudstone of Mt. Chual" (Te₁)
2. Mf2274 (ELB-2-9-2)
3. Laurel 7.5' Quad., Lat. 37° 06' 13" N, Long. 121° 52' 57" W
4.
5. Mudstone
6. Benthic foraminifers
7. Eocene, early
8.
9. P7 to P8
10. Foraminifers (P)
11. Poore, R., 1974
13.

48 1. Vaqueros Formation
2. B-7092
3. Laurel 7.5' Quad., Lat. 37° 05' 01" N, Long. 121° 54' 31" W
4.
5. Mudstone, greenish-gray, silty
6. Planktic foraminifers
7. Oligocene
8. Zemorrian
9. *Uvigerina gallowayi* Zone
10. Foraminifers (B)
13. Bathyal biofacies
1. Vaqueros Formation
2. B-7093
3. Laurel 7.5' Quad., Lat. 37° 05' 01" N, Long. 121° 54' 31" W
4. Mudstone, greenish-gray, very fine sandy
5. Oligocene
6. Zemorrian
7. *Uvigerina gallowayi* Zone
8. Foraminifers (B)
10. Smith, R.K., 1971
11. Bathyal biofacies
12. Smith (1971)

1. Vaqueros Formation
2. B-7094
3. Laurel 7.5' Quad., Lat. 37° 05' 01" N, Long. 121° 54' 31" W
4. Mudstone, greenish-gray, very fine sandy
5. Planktic foraminifers
6. Oligocene
7. Zemorrian
8. *Uvigerina gallowayi* Zone
9. Foraminifers (B)
10. Smith, R.K., 1971
12. Bathyal biofacies
13. Smith (1971)

1. San Lorenzo Formation, Rices Mudstone Member
2. B-7095
3. Laurel 7.5' Quad., Lat. 37° 05' 06" N, Long. 121° 54' 22" W
4. Mudstone, dark-gray
5. Oligocene
6. Zemorrian
7. *Uvigerina gallowayi* Zone
8. Foraminifers (B)
10. Smith, R.K., 1971
11. Bathyal biofacies
12. Smith (1971)

1. San Lorenzo Formation, Rices Mudstone Member
2. B-7096
3. Laurel 7.5' Quad., Lat. 37° 05' 11" N, Long. 121° 54' 17" W
4. Mudstone, black to dark-gray, sandy to silty
5. Oligocene
6. Zemorrian
7. *Uvigerina gallowayi* Zone
10. Foraminifers (B)
13. Bathyal biofacies

51 1. San Lorenzo Formation, Rices Mudstone Member
2. B-7097
3. Laurel 7.5' Quad., Lat. 37° 05' 12" N, Long. 121° 54' 14" W
4. 
5. Mudstone, dark-gray
6. Planktic foraminifers
7. Oligocene
8. Zemonian
9. *Uvigerina gallowayi* Zone
10. Foraminifers (B)
13. Bathyal biofacies

52 1. San Lorenzo Formation, Rices Mudstone Member
2. B-7099
3. Laurel 7.5' Quad., Lat. 37° 05' 13" N, Long. 121° 54' 10" W
4. 
5. Mudstone, dark-gray
6. 
7. Oligocene
8. Zemonian
9. *Uvigerina gallowayi* Zone
10. Foraminifers (B)
13. Bathyal biofacies

52 1. San Lorenzo Formation, Rices Mudstone Member
2. B-7100
3. Laurel 7.5' Quad., Lat. 37° 05' 13" N, Long. 121° 54' 10" W
4. Mudstone, dark-gray
6.
7. Oligocene
8. Zemorrian
9. Uvigerina gallowayi Zone
10. Foraminifers (B)
13. Bathyal biofacies

53 1. San Lorenzo Formation, Rices Mudstone Member
2. B-7101
3. Laurel 7.5' Quad., Lat. 37° 05' 06" N, Long. 121° 53' 57" W
4.
5. Siltstone, pale-gray and sandstone, very-fine, silty
6.
7. Oligocene
8. Zemorrian
9. Uvigerina gallowayi Zone
10. Foraminifers (B)
13. Bathyal biofacies

53 1. San Lorenzo Formation, Rices Mudstone Member
2. B-7102
3. Laurel 7.5' Quad., Lat. 37° 05' 11" N, Long. 121° 54' 06" W
4.
5. Mudstone, finely laminated, brownish- and bluish-gray, silty
6.
7. Oligocene
8. Zemorrian
9. Uvigerina gallowayi Zone
10. Foraminifers (B)
13. Bathyal biofacies

53 1. San Lorenzo Formation, Rices Mudstone Member
2. B-7103
3. Laurel 7.5' Quad., Lat. 37° 05' 14" N, Long. 121° 54' 02" W
4.
5. Mudstone, greenish-gray, silty
6.
7. Oligocene
8. Zemorrian
9. Uvigerina gallowayi Zone
10. Foraminifers (B)
13. Bathyal biofacies

54 1. San Lorenzo Formation, middle sandstone
2. B-7104
3. Laurel 7.5' Quad., Lat. 37° 05' 15" N, Long. 121° 54' 02" W
4. Sandstone, massive, buff-weathering, gray, fine- to medium-grained, argillaceous
5. Mollusks
6. Oligocene
7. Refugian
8. Foraminifers (B)
10. Smith, R.K., 1971
13. Neritic biofacies

54 1. San Lorenzo Formation, Twobar Shale Member
2. B-7105
3. Laurel 7.5' Quad., Lat. 37° 05' 17" N, Long. 121° 53' 58" W
4. Mudstone, finely laminated, black to dark greenish-gray, iron-stained, slightly fissile
5. Mollusks
6. Eocene
7. Narizian
8. Bulimina corrugata Zone
9. Foraminifers (B)
10. Smith, R.K., 1971
13. Outer neritic to bathyal biofacies

54 1. San Lorenzo Formation, Twobar Shale Member
2. B-7106
3. Laurel 7.5' Quad., Lat. 37° 05' 17" N, Long. 121° 53' 58" W
4. Mudstone, finely laminated, black to dark greenish-gray
5. Mollusks
6. Eocene
7. Narizian
8. Bulimina corrugata Zone
9. Foraminifers (B)
10. Smith, R.K., 1971
13. Outer neritic to bathyal biofacies

54 1. San Lorenzo Formation, Twobar Shale Member
2. B-7107
3. Laurel 7.5' Quad., Lat. 37° 05' 17" N, Long. 121° 53' 58" W
4. Mudstone, finely laminated, black to dark greenish-gray
5. Mollusks
7. Eocene
8. Narizian
9. *Bulimina corrugata* Zone
10. Foraminifers (B)
13. Outer neritic to bathyal biofacies

54 1. San Lorenzo Formation, Twobar Shale Member
2. B-7108
3. Laurel 7.5' Quad., Lat. 37° 05' 19" N, Long. 121° 53' 57" W
4. Mudstone, finely laminated, black to dark greenish-gray
5. Eocene
6. Narizian
7. *Bulimina corrugata* Zone
8. Foraminifers (B)
10. Smith, R.K., 1971
11. Outer neritic biofacies
12. Smith (1971)

54 1. San Lorenzo Formation, Twobar Shale Member
2. B-7109
3. Laurel 7.5' Quad., Lat. 37° 05' 20" N, Long. 121° 53' 56" W
4. Mudstone, finely laminated, black to dark greenish-gray
5. Eocene
6. Narizian
7. *Bulimina corrugata* Zone
8. Foraminifers (B)
10. Smith, R.K., 1971
11. Outer neritic biofacies
12. Smith (1971)

54 1. San Lorenzo Formation
2. Mf1579 (EB622)
3. Laurel 7.5' Quad., Lat. 37° 05' 30" N, Long. 121° 53' 37" W
4. Mudstone, finely laminated, black to dark greenish-gray
5. Eocene
6. Narizian
7. *Bulimina corrugata* Zone
8. Foraminifers (B)
11. Internal report; McDougall (1991)
55 1. Butano Formation
2. B-8349
3. Laurel 7.5' Quad., Lat. 37° 05' 31" N, Long. 121° 53' 38" W
4.
5. Sandstone, glauconitic
6. Mollusks
7. Eocene
8. Narizian
9.
10. Foraminifers (B)
13. Shallow neritic biofacies

56 1. San Lorenzo Formation, Twobar Shale Member
2. B-7110
3. Laurel 7.5' Quad., Lat. 37° 05' 22" N, Long. 121° 53' 49" W
4.
5. Mudstone, finely laminated, bluish-gray to black to dark greenish-gray
6.
7. Eocene
8. Narizian
9.
10. Foraminifers (B)
13. Outer neritic biofacies

56 1. San Lorenzo Formation, Twobar Shale Member
2. B-7111
3. Laurel 7.5' Quad., Lat. 37° 05' 22" N, Long. 121° 53' 49" W
4.
5. Shale, bluish-gray, clayey
6. Planktic foraminifers
7. Eocene
8. Narizian
9.
10. Foraminifers (B)
13. Outer neritic biofacies

56 1. San Lorenzo Formation, Twobar Shale Member
2. B-7112
3. Laurel 7.5' Quad., Lat. 37° 05' 22" N, Long. 121° 53' 49" W
4.
5. Shale, bluish-gray, clayey
6. Planktic foraminifers
7. Eocene
8. Narizian
9.
10. Foraminifers (B)
13. Outer neritic biofacies

56 1. San Lorenzo Formation, Twobar Shale Member
2. B-7113
3. Laurel 7.5' Quad., Lat. 37° 05' 22" N, Long. 121° 53' 49" W
4.
5. Mudstone, dark brownish-gray, finely laminated
6. Planktic foraminifers
7. Eocene
8. Narizian
9.
10. Foraminifers (B)
13. Outer neritic to bathyal biofacies

56 1. San Lorenzo Formation, Twobar Shale Member
2. B-7114
3. Laurel 7.5' Quad., Lat. 37° 05' 24" N, Long. 121° 53' 48" W
4.
5. Mudstone, dark brownish-gray, finely laminated
6.
7. Eocene
8. Narizian
9.
10. Foraminifers (B)
13. Outer neritic to bathyal biofacies

56 1. San Lorenzo Formation, Twobar Shale Member
2. B-7115
3. Laurel 7.5' Quad., Lat. 37° 05' 25" N, Long. 121° 53' 46" W
4.
5. Mudstone, dark brownish-gray, finely laminated
6.
7. Eocene
8. Narizian
9.
10. Foraminifers (B)
13. Outer neritic to bathyal biofacies

56 1. San Lorenzo Formation, middle sandstone
2. B-7116
3. Laurel 7.5' Quad., Lat. 37° 05' 26" N, Long. 121° 53' 43" W
4. Sandstone, thick-bedded, glauconitic, argillaceous
5. Mollusks
6. Oligocene
7. Refugian
9. Foraminifers (B)
13. Neritic biofacies

56 1. San Lorenzo Formation, Rices Mudstone Member
2. B-7117
3. Laurel 7.5' Quad., Lat. 37° 05' 27" N, Long. 121° 53' 41" W,
4. 200 ft. stratigraphically above B-7116
5. Mudstone, greenish-brown, clay-rich
6. Oligocene
8. Zemorrian
9. Uvigerina gallowayi Zone
10. Foraminifers (B)
13. Upper bathyal biofacies

56 1. San Lorenzo Formation, Rices Mudstone Member
2. B-7118
3. Laurel 7.5' Quad., Lat. 37° 05' 27" N, Long. 121° 53' 41" W,
4. 50 ft. stratigraphically above B-7117
5. Mudstone, dark brownish-gray
6. Oligocene
8. Zemorrian
9. Uvigerina gallowayi Zone
10. Foraminifers (B)
13. Upper bathyal biofacies

56 1. San Lorenzo Formation, Rices Mudstone Member
2. B-7119
3. Laurel 7.5' Quad., Lat. 37° 05' 27" N, Long. 121° 53' 41" W,
4. 25 ft. stratigraphically above B-7118
5. Mudstone, dark gray, very weakly fissile
6. Fish scales
7. Oligocene
8. Zemorrian
9. Uvigerina gallowayi Zone
10. Foraminifers (B)
13. Upper bathyal biofacies

56  1. San Lorenzo Formation, Rices Mudstone Member
2. B-7120
3. Laurel 7.5' Quad., Lat. 37° 05' 27" N, Long. 121° 53' 41" W
4. 30 ft. stratigraphically above B-7119
5. Mudstone, dark gray, very weakly fissile
6. Planktic foraminifers, fish scales, shark teeth
7. Oligocene
8. Zemorian
9. Uvigerina gallowayi Zone
10. Foraminifers (B)
13. Upper bathyal biofacies

56  1. San Lorenzo Formation, Rices Mudstone Member
2. B-7121
3. Laurel 7.5' Quad., Lat. 37° 05' 27" N, Long. 121° 53' 41" W
4.
5. Mudstone, dark gray
6.
7. Oligocene
8. Zemorian
9. Uvigerina gallowayi Zone
10. Foraminifers (B)
13. Outer neritic to upper bathyal biofacies

56  1. San Lorenzo Formation, Rices Mudstone Member
2. B-7122
3. Laurel 7.5' Quad., Lat. 37° 05' 29" N, Long. 121° 53' 39" W
4.
5. Mudstone, fissile, black
6.
7. Oligocene
8. Zemorian
9. Uvigerina gallowayi Zone
10. Foraminifers (B)
13. Bathyal biofacies

57  1. Butano Formation?
2. B-7123
3. Laurel 7.5' Quad., Lat. 37° 05' 30" N, Long. 121° 53' 38" W
4.
5. Mudstone, black
6. Planktic foraminifers 
7. Eocene 
8. Narizian 
9. 
10. Foraminifers (B) 
13. Outer neritic to bathyal biofacies 

57 1. Butano Formation? 
2. B-7124 
3. Laurel 7.5’ Quad., Lat. 37° 05' 34” N, Long. 121° 53' 31” W 
4. 
5. Mudstone, dark gray, partially laminated 
6. 
7. Eocene 
8. Narizian 
9. 
10. Foraminifers (B) 
13. Outer neritic to upper bathyal biofacies 

57 1. Butano Formation? 
2. B-7125 
3. Laurel 7.5’ Quad., Lat. 37° 05' 34” N, Long. 121° 53' 29” W, 
4. 20 ft. stratigraphically above B-7124 
5. Mudstone, faintly laminated, black, silty 
6. Planktic foraminifers 
7. Eocene 
8. Narizian 
9. 
10. Foraminifers (B) 
13. Outer neritic to upper bathyal biofacies 

57 1. Butano Formation? 
2. B-7126 
3. Laurel 7.5’ Quad., Lat. 37° 05' 34” N, Long. 121° 53' 29” W, 
4. 17 ft. stratigraphically above B-7125 
5. Mudstone, dark gray, laminated 
6. Planktic foraminifers 
7. Eocene 
8. Narizian 
9. 
10. Foraminifers (B) 
13. Outer neritic to upper bathyal biofacies 
1. Butano Formation?
2. B-7127
3. Laurel 7.5' Quad., Lat. 37° 05' 35" N, Long. 121° 53' 28" W
4. 45 ft. stratigraphically above B-7126
5. Mudstone, bedded, laminated
6. Planktic foraminifers
7. Eocene
8. Narizian
9. Foraminifers (B)
10. Smith, R.K., 1971
13. Outer neritic to upper bathyal biofacies

57

1. Butano Formation?
2. B-7128
3. Laurel 7.5' Quad., Lat. 37° 05' 36" N, Long. 121° 53' 25" W
4. Siltstone, bedded, brownish-gray
5. Eocene
6. Narizian
7. Foraminifers (B)
8. Smith, R.K., 1971
10. Bathyal biofacies
11. Smith (1971)

57

1. Butano Formation?
2. B-7129
3. Laurel 7.5' Quad., Lat. 37° 05' 36" N, Long. 121° 53' 25" W
4. 5 ft. above B-7128
5. Mudstone, bedded
6. Eocene
7. Narizian
8. Foraminifers (B)
10. Smith, R.K., 1971
11. Bathyal biofacies
12. Smith (1971)

58

1. Lambert Shale
2. Mf7649 (JC 89-1)
3. Laurel 7.5' Quad., Lat. 37° 03' 60" N, Long. 121° 54' 24" W
4. Shale
5. Miocene, early
6. Saucesion, Late or Relizian, early
9. Foraminifers (B)
10. McDougall, K., 1989
11. Clark, J., and McLaughlin, R.J., 1989
12. Upper middle-bathyal biofacies (500-1500 m)
13. Internal report; McDougall (1991)

59 1. Vaqueros Formation
2. Mf7438 (88CB2543A)
3. Laurel 7.5' Quad., Lat. 37° 05' 01" N, Long. 121° 52' 35" W
4. Mudstone, interbedded with sandstone
5. Tertiary?
6. Foraminifers (B)
7. McDougall, K., 1988
9. Internal report; McDougall (1991)

60 1. "Marine shale and sandstone of Highland Way" (Tme)
2. Mf7481 (MSJ-150-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 09" N, Long. 121° 45' 04" W
4. Mudstone, hard, silty, micaceous, dark brown to black
5. Unknown
6. Foraminifers (B)
7. McDougall, K., 1988
8. McLaughlin, R.J., 1988
9. Probably abyssal biofacies (≥4000 m)
10. Internal report; McDougall (1989)

61 1. "Marine shale and sandstone of Highland Way" (Tme)
2. Mf7482 (MSJ-152-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 05' 26" N, Long. 121° 51' 54" W
4. Mudstone, hard, silty, micaceous, dark brown to black
6. Planktic and benthic foraminifers
7. Eocene, early
9. Calcareous nannofossils
11. McLaughlin, R.J., 1988
12. Internal report; McDougall (1989)

1. "Marine shale and sandstone of Highland Way" (Tme)
2. Mf7482 (MSJ-152-88)
3. Loma Prieta, 7.5' Quad., Lat. 37° 05' 26" N, Long. 121° 51' 54" W
4. Mudstone, hard, silty, micaceous, dark brown to black
6. Planktic foraminifers and calcareous nannofossils
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P8 to P9
10. Foraminifers (B)
11. McDougall, K., 1988
12. McLaughlin, R.J., 1988
13. Upper middle-bathyal to abyssal biofacies (>500 m)
12. McLaughlin, R.J., 1988
13. Upper middle-bathyal to abyssal biofacies (≥500 m)

63 1. "Marine shale and sandstone of Highland Way" (Tme)
  2. Mf7486 (MSJ-144-88)
  3. Loma Prieta 7.5' Quad., Lat. 37° 05' 06" N, Long. 121° 51' 20" W
  4.
  5. Mudstone, hard, silty, micaceous, dark brown to black
  6.
  7. Unknown
  8.
  9.
10. Foraminifers (B)
11. McDougall, K., 1988
12. McLaughlin, R.J., 1988
13. Probably abyssal biofacies (≥4000 m)

64 1. "Marine shale and sandstone of Highland Way" (Tme)
  2. Mf7487 (MSJ-146-88)
  3. Loma Prieta 7.5' Quad., Lat. 37° 05' 03" N, Long. 121° 51' 10" W
  4.
  5. Mudstone, hard
  6.
  7. Unknown
  8.
  9.
10. Foraminifers (B)
11. McDougall, K., 1988
12. McLaughlin, R.J., 1988
13. Probably abyssal biofacies (≥4000 m)

65 1. "Marine shale and sandstone of Highland Way" (Tme)
  2. Mf7488 (MSJ-143-88)
  3. Loma Prieta 7.5' Quad., Lat. 37° 04' 09" N, Long. 121° 51' 03" W
  4.
  5. Mudstone, hard
  6.
  7. Unknown
  8.
  9.
10. Foraminifers (B)
11. McDougall, K., 1988
12. McLaughlin, R.J., 1988
13.

66 1. San Lorenzo Formation
  2. Mf1529 (EB625)
  3. Loma Prieta 7.5' Quad., Lat. 37° 04' 09" N, Long. 121° 51' 14" W,
  4. taken along Aptos Creek
  5. Sandstone and shale
6. Fish debris
7. Oligocene
8. Zemorrian, early
9.
10. Foraminifers (B)
13. Upper middle-bathyal biofacies (500-1500 m)

66 1. San Lorenzo Formation
2. Mf1583 (EB625)
3. Loma Prieta 7.5' Quad., Lat. 37° 04' 09" N, Long. 121° 51' 14" W,
4. taken along Aptos Creek
5. Sandstone and shale
6.
7. Oligocene
8. Zemorrian, late
9.
10. Foraminifers (B)
13. Upper middle bathyal (500-1500 m)

67 1. San Lorenzo Formation
2. Mf1584 (EB626)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 49" N, Long. 121° 51' 27" W,
4. taken along Aptos Creek
5. Siltstone and sandstone
6. Fish debris
7. Oligocene
8. Zemorrian, early
9.
10. Foraminifers (B)
13. Upper middle-bathyal biofacies (500-1500 m)

68 1. San Lorenzo Formation
2. Mf1585 (EB627)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 47" N, Long. 121° 51' 26" W,
4. taken along Aptos Creek
5. Siltstone and sandstone
6. Radiolarians
7. Unknown
8.
9.
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)
69 1. San Lorenzo Formation
2. Mf1586 (EB628A)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 45" N, Long. 121° 51' 26" W,
4. taken along Aptos Creek
5. Mudstone
6. Echinoid spines
7. Eocene, late to Oligocene, early
8. Refugian
9.
10. Foraminifers (B)
13. Outer neritic to upper bathyal biofacies (150-500 m)

70 1. San Lorenzo Formation
2. Mf1587 (EB629)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 38" N, Long. 121° 51' 28" W,
4.
5. Shale
6. Fish debris
7. Eocene, late
8. Probably Narizian
9.
10. Foraminifers (B)
13. Bathyal biofacies (150-200 m)

71 1. San Lorenzo Formation
2. Mf1588 (EB630)
3. Loma Prieta 7.5' Quad., Lat. 37° 06' 59" N, Long. 121° 49' 13" W,
4. taken along Aptos Creek
5. Sandstone and shale
6. Fish debris
7. Eocene, late
8. Narizian
9.
10. Foraminifers (B)
13. Bathyal biofacies (150-200 m)

72 1. San Lorenzo Formation
2. Mf7444 (88CB2562)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 49" N, Long. 121° 50' 22" W,
4. west side of Buzzard Lagoon Road
5. Shale, laminated, dark brown
6.
7. Unknown
8.
9. Foraminifers (B)
10. McDougall, K., 1988
12. Unknown
13. Internal report; McDougall (1989)

73  1. "Marine shale and sandstone of Highland Way" (Tme)
    2. Mf7489 (MSJ-155B-88)
    3. Loma Prieta 7.5' Quad., Lat. 37° 04' 06" N, Long. 121° 49' 53" W
    4. Mudstone
    5. Unknown
    6. Equivalent to planktic foraminiferal zones P9 to P10
    7. Foraminifers (B)
    8. McDougall, K., 1988
    9. McLaughlin, R.J., 1988
    10. Probably abyssal biofacies (>4000 m)
    11. Internal report; McDougall (1989)

73  1. "Marine shale and sandstone of Highland Way" (Tme)
    2. Mf7490 (MSJ-155A-88)
    3. Loma Prieta 7.5' Quad., Lat. 37° 04' 06" N, Long. 121° 49' 53" W
    4. Mudstone
    5. Planktic foraminifers
    6. Eocene
    7. Penutian
    8. Equivalent to planktic foraminiferal zones P9 to P10
    9. Foraminifers (B)
    10. McDougall, K., 1988
    11. McLaughlin, R.J., 1988
    12. Upper middle-bathyal to abyssal biofacies (>500 m)
    13. Internal report

74  1. Butano Formation
    2. Mf7443 (88CB2561)
    3. Loma Prieta 7.5' Quad., Lat. 37° 03' 11" N, Long. 121° 50' 09" W,
    4. east side of Buzzard Lagoon Road
    5. Sandstone and mudstone
    6. Cenozoic, probably Eocene
    7. Foraminifers (B)
    8. McDougall, K., 1988
    10. Lower middle-bathyal to lower bathyal biofacies (>1500 m)
    11. Internal report; McDougall (1989)
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<td>San Lorenzo Formation</td>
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<td>Loma Prieta 7.5' Quad., Lat. 37° 03' 01&quot; N, Long. 121° 50' 19&quot; W</td>
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<td>Mudstone</td>
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<td>5.</td>
<td>Planktic foraminifers</td>
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<td></td>
<td>6.</td>
<td>Eocene</td>
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<td></td>
<td>7.</td>
<td>Narizian, early, or older</td>
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<td>Foraminifers (B)</td>
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<td>11.</td>
<td>Upper middle-bathyal biofacies (500-1500 m)</td>
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<td>12.</td>
<td>Internal report; McDougall (1989)</td>
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</table>

| 75   | 1.    | San Lorenzo Formation |
|      | 2.    | Mf7442 (88CB2552B) |
|      | 3.    | Loma Prieta 7.5' Quad., Lat. 37° 03' 02" N, Long. 121° 50' 15" W, west side of Buzzard Lagoon Road |
|      | 4.    | Sandstone and mudstone, well-bedded |
|      | 5.    | Unknown |
|      | 6.    | Foraminifers (B) |
|      | 7.    | McDougall, K., 1988 |
|      | 9.    | Internal report; McDougall (1989) |

| 76   | 1.    | San Lorenzo Formation, Twobar Shale Member |
|      | 2.    | Mf1581 (EB618A) |
|      | 3.    | Loma Prieta 7.5' Quad., Lat. 37° 02' 52" N, Long. 121° 50' 25" W |
|      | 4.    | Mudstone |
|      | 5.    | Diatoms, radiolarians, sponge spicules and fish debris |
|      | 6.    | Unknown |
|      | 7.    | Foraminifers (B) |

| 77   | 1.    | San Lorenzo Formation |
|      | 2.    | Mf7440 (88CB2551) |
|      | 3.    | Loma Prieta 7.5' Quad., Lat. 37° 02' 45" N, Long. 121° 50' 29" W, west side of Buzzard Lagoon Road |
|      | 4.    | Sandstone and mudstone, well-bedded |
|      | 5.    | Unknown |
|      | 6.    | Foraminifers (B) |
10. Foraminifers (B)
11. McDougall, K., 1988

78 1. Butano Formation
2. Mf4498 (77CB1762)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 12" N, Long. 121° 46' 50" W
4. Shale and sandstone
5. Paleocene, late to Eocene, probably early
6. Equivalent to planktic foraminiferal zones P4 to P6b
7. Foraminifers (B)
10. Lower middle-bathyal to lower bathyal biofacies (>1500 m)
11. Internal report; McDougall (1989)

78 1. Butano Formation
2. Mf4499 (77CB1762A)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 12" N, Long. 121° 49' 18" W
4. Shale and sandstone
5. Paleocene, probably Eocene
6. Cenozoic, probably Eocene
7. Foraminifers (B)
10. Lower middle-bathyal to lower bathyal biofacies (>1500 m)
11. Internal report; McDougall (1989)

78 1. Butano Formation
2. Mf7679 (90CB2803)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 14" N, Long. 121° 49' 17" W,
4. along Corralitos Creek, about 500 feet upstream from Diablo Gulch
5. Shale and sandstone
6. Planktic foraminifers, diatoms, radiolarians and fish debris
7. Eocene, late
8. Narizian
9. Equivalent to planktic foraminiferal zones P11(Late) to P15
10. Foraminifers (B)
11. McDougall, K., 1990
13. Lower bathyal to abyssal biofacies (≥2000 m)
14. Internal report

79 1. "Marine shale and sandstone of Highland Way" (Tme)
2. Mf1053 (EB673)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 55" N, Long. 121° 48' 53" W
4. Sandstone and shale, rhythmically bedded
5. Radiolarians
6. Eocene
7. 
8. Equivalent to planktic foraminiferal zones P6b to P16
9. Foraminifers (B)
12. Lower bathyal to abyssal biofacies (≥2000 m)
13. Internal report; McDougall (1989)

80 1. San Lorenzo Formation
2. Mf7680 (90CB2804)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 02" N, Long. 121° 49' 09" W, along Corralitos Creek, about 300 feet upstream from houses
4. Shale and siltstone, thinly bedded to laminated
5. Radiolarians and fish debris
6. Oligocene, early
7. Zemorrian, early
8. 
9. Foraminifers (B)
10. McDougall, K., 1990
12. Upper middle-bathyal biofacies (500-1500 m)
13. Internal report

81 1. "Marine shale and sandstone of Highland Way" (Tme)
2. Mf7496 (MSJ-200-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 34" N, Long. 121° 48' 32" W
4. Shale, siliceous, micaceous
5. Unknown
6. 
7. Foraminifers (B)
8. McDougall, K., 1988
9. McLaughlin, R.J., 1988
10. Internal report; McDougall (1989)

82 1. "Marine shale and sandstone of Highland Way" (Tme)
2. Mf7497 (MSJ-202-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 35" N, Long. 121° 48' 29" W
4. Shale
5. Unknown
6. 
7. Foraminifers (B)
8. McDougall, K., 1988
9. McLaughlin, R.J., 1988
13. Probably abyssal biofacies (>4000 m)

83  1. Vaqueros Formation
2. MF4501 (77CB1771)
3. Loma Prieta 7.5' Quad., Lat. 37° 02' 10" N, Long. 121° 49' 06" W
4. Shale, well-bedded
5. Oligocene
6. Zemorrian, early
7. Foraminifers (B)
10. Internal report; McDougall (1989)

84  1. Vaqueros Formation
2. MF4502 (77CB1773)
3. Loma Prieta 7.5' Quad., Lat. 37° 02' 08" N, Long. 121° 49' 08" W
4. Shale
5. Oligocene
6. Zemorrian, early
7. Foraminifers (B)
10. Internal report; McDougall (1989)

85  1. Monterey Formation
2. MF1418 (68CB274)
3. Loma Prieta 7.5' Quad., Lat. 37° 02' 18" N, Long. 121° 47' 01" W
4. Shale
5. Miocene or older
6. Foraminifers (B)
7. Pierce, R.L., 1969
9. Internal report
10. Monterey Formation
11. MF1419 (68CB281)
12. Loma Prieta 7.5' Quad., Lat. 37° 02' 11" N, Long. 121° 46' 48" W
13. Shale
14. Internal report
7. Eocene, early, late
8. Narizian or Ulatisian
9.
10. Foraminifers (B)
13.
14. Internal report

86
1. Monterey Formation
2. Mf420 (68CB282)
3. Loma Prieta 7.5' Quad., Lat. 37° 02' 14" N, Long. 121° 46' 45" W
4. Shale
5. Oligocene
6. Zemorrian
7. Foraminifers (B)
10. Internal report

86
1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2649 (RMH-60-71)
3. Loma Prieta 7.5' Quad., Lat. 37° 02' 09" N, Long. 121° 46' 50" W
4. Mudstone, red and green mottled
5. Benthic foraminifers
6. Eocene, middle to late
7. Foraminifers (B)
8. Poore, R., 1976
10. Internal report; McDougall (1989)

87
1. "Marine shale and sandstone of Highland Way" (Tme)
2. Mf7495 (MSJ-189-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 01' 50" N, Long. 121° 45' 58" W
4. Shale
5. Planktic foraminifers
6. Oligocene, late
7. Foraminifers (B)
8. McDougall, K., 1988
9. McLaughlin, R.J., 1988
10. Upper bathyal biofacies (150-500 m)
11. Internal report; McDougall (1989)
88 1. "Marine shale and sandstone of Highland Way" (Tme)
2. RMH-55-71
3. Loma Prieta 7.5' Quad., Lat. 37° 02' 04" N, Long. 121° 46' 02" W
4. Mudstone
5. Fish
6. Oligocene, late through Miocene, early
7. Saucesian or Zemorian
8. Foraminifers (B)
10. McLaughlin, R.J., 1971
11. Lower bathyal to abyssal biofacies (≥2000 m)
12. Internal report; McDougall (1989)

89 1. "Marine shale and sandstone of Highland Way" (Tme)
2. Mf7492 (MSJ-183-88)
3. Loma Prieta, 7.5' Quad., Lat. 37° 02' 15" N, Long. 121° 45' 59" W
4. Shale
5. Foraminifers (B)
6. McDougall, K., 1988
7. McLaughlin, R.J., 1988
8. Unknown
9. Probably abyssal biofacies (≥4000 m)
10. Internal report; McDougall (1989)

90 1. "Marine shale and sandstone of Highland Way" (Tme)
2. Mf7493 (MSJ-184-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 02' 12" N, Long. 121° 46' 10" W
4. Mudstone
5. Radiolarians?, echinoid spines
6. Eocene
7. CPU?
8. Foraminifers (B)
9. McDougall, K., 1988
10. McLaughlin, R.J., 1988
11. Unknown
12. Probably abyssal biofacies (≥4000 m)
13. Internal report; McDougall (1989)

91 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7475 (MSJ-122-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 11" N, Long. 121° 45' 10" W
4. Mudstone
5. Planktic and benthic foraminifers
6. Eocene, early
7. Foraminifers (B)
8. CP11?
10. Calcareous nannofossils
12. McLaughlin, R.J., 1988
13. Internal report; McDougall (1989)

1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7475 (MSJ-122-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 11" N, Long 121° 45' 10" W
4. Mudstone
5. Planktic foraminifers and calcareous nannofossils
6. Eocene, early
7. Penutian

10. Foraminifers (B)
11. McDougall, K., 1988
12. McLaughlin, R.J., 1988
13. Lower bathyal to abyssal biofacies (>2000 m)

92
1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7501 (MSJ-123-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 23" N, Long 121° 45' 15" W, along road at
4. 2057' elevation
5. Limestone, coarse bioclastic
6. Large foraminifers, gastropods, bivalve fragments
7. Paleogene
8. Eocene, early
9. P7 to P8
10. Foraminifers (P)
11. Sliter, W.V., 1988
12. McLaughlin, R.J., 1988
13. Probably bathyal
14. Internal report

93
1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7480 (MSJ-121-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 03' 10" N, Long. 121° 45' 05" W
4. Mudstone
5. Planktic foraminifers, echinoid spines and fish debris
6. Eocene, early
7. Penutian
8. 
9. 
10. Foraminifers (B)
11. McDougall, K., 1988
12. McLaughlin, R.J., 1988
13. Lower bathyal to abyssal biofacies (>2000 m)

94
1. Probably equivalent to "Mt. Madonna Formation"
2. Mf1603 (RM 431-70)
3. Mt. Madonna 7.5' Quad., Lat. 37° 01' 44" N, Long. 121° 43' 23" W
4. Mudstone
5. Probably Eocene, early, or older
6. Foraminifers (B)
9. Internal report; McLaughlin (1973); Simoni (1974)

95 1. "Mt. Madonna Formation"
2. Mf1306 (69CB542)
3. Mt. Madonna 7.5' Quad., Lat. 37° 01' 26" N, Long. 121° 43' 03" W
4. Sandstone and shale
5. Eocene, early
6. Foraminifers (B)
7. Pierce, R.L., 1969; revised by McDougall, 1993
9. Lower bathyal to abyssal biofacies (≥2000 m)
10. Internal report; Bauer (1971); McLaughlin (1973); Simoni (1974)

96 1. "Mt. Madonna Formation"
2. Mf1305 (69CB541)
3. Mt. Madonna 7.5' Quad., Lat. 37° 01' 33" N, Long. 121° 42' 57" W
4. Shale
5. Radiolarians
6. Eocene, early
7. Foraminifers (B)
10. Lower bathyal to abyssal biofacies (≥2000 m)
11. Internal report; Bauer (1971); McLaughlin (1973); Simoni (1974)

97 1. "Mt. Madonna Formation"
2. Mf1304 (69CB537)
3. Mt. Madonna 7.5' Quad., Lat. 37° 01' 46" N, Long. 121° 42' 52" W
4. 625 ft. N, 375 feet west of SW corner of Sec. 26, T10S, R3G
5. Sandstone and shale, gray
6. Questionable Inoceramus prisms
7. Eocene, early
8. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)

98 1. "Mt. Madonna Formation"
2. MF1307 (69CB543)
3. Mt. Madonna 7.5' Quad., Lat. 37° 00' 06" N, Long. 121° 43' 42" W
4. 
5. Shale, semisiliceous
6. Radiolaria and fish scales
7. Possibly Miocene, early
8. 
9. 
10. Foraminifers (B)
13. 
14. Internal report

99 1. "Mt. Madonna Formation"
2. MF1596 (RM 151-70, SF-151-70)
3. Mt. Madonna 7.5' Quad., Lat. 37° 01' 03" N, Long. 121° 42' 22" W
4. 
5. Mudstone
6. Planktic foraminifers
7. Paleocene, late or Eocene, early, probably the latter
8. Penutian or Bulitian
9. 
10. Foraminifers (B)
13. 
14. Internal report; McLaughlin (1973)

100 1. "Mt. Madonna Formation"
2. MF1595 (RM 145-70, SF-145-70)
3. Mt. Madonna 7.5' Quad., Lat. 37° 01' 08" N, Long. 121° 42' 02" W
4. 
5. Mudstone
6. 
7. Eocene or older, possibly Eocene, early or Paleocene
8. 
9. 
10. Foraminifers (B)
13. 

101 1. "Mt. Madonna Formation"
2. MF1594 (RM 80-69, SF-80-69)
3. Mt. Madonna 7.5' Quad., Lat. 01' 07" N, Long. 121° 41' 32" W
4. 
5. Mudstone
6. Planktic foraminifers
7. Eocene, middle or older, probably Eocene, early
8. Ulatisian, Penutian or Bulitian
9.
10. Foraminifers (B)
13.

102 1. "Mt. Madonna Formation"
3. Mt. Madonna 7.5' Quad., Lat. 37° 00' 32" N, Long. 121° 41' 18" W
4.
5. Mudstone
6.
7. Eocene or older, possibly early Eocene, Paleocene or Cretaceous?
8.
9.
10. Foraminifers (B)
13.
14. Internal report; Simoni (1974); McLaughlin (1973)

103 1. "Mt. Madonna Formation"
2. Mf1592 (RM 7-69, SF-7-9)
3. Mt. Madonna 7.5' Quad., Lat. 37° 00' 11" N, Long. 121° 40' 35" W
4.
5. Mudstone
6.
7. Probably Eocene?, middle or early
8. Ulatisian or Penutian
9.
10. Foraminifers (B)
13.
14. Internal report; Simoni (1974); McLaughlin (1973)

104 1. "Little Arthur Creek Formation"
2. RM 192-70
3. Mt. Madonna 7.5' Quad., Lat. 37° 01' 11" N, Long. 121° 40' 35" W
4.
5. Shale
6. Planktic foraminifers
7. Miocene and Oligocene, late
8.
9.
10. Foraminifers (B)
11. Pierce, R.L., '970
13.
14. Internal report
104 1. "Little Arthur Creek Formation"
2. RM 263-70 (SF-263-70)
3. Mt. Madonna 7.5' Quad., Lat. 37° 01' 10" N, Long. 121° 40' 28" W
4. Mudstone
5. Miocene, middle or older
6. Possibly Saucesian or Zemorrian, late
7. Foraminifers (B)
10. Internal report; McLaughlin (1973)

105 1. "Little Arthur Creek Formation"
2. Mf1601 (RM 395-70)
3. Mt. Madonna 7.5' Quad., Lat. 37° 01' 39" N, Long. 121° 40' 31" W
4. Sandstone
5. Diatoms?
6. Unknown
7. Foraminifers (B)
10. Internal report

106 1. "Little Arthur Creek Formation"
2. Mf1600 (RM 396-70)
3. Mt. Madonna 7.5' Quad., Lat. 37° 01' 41" N, Long. 121° 40' 38" W
4. Sandstone
5. Planktic foraminifers and diatoms
6. Oligocene
7. Zemorrian
8. Foraminifers (B)
11. Internal report
12. McLaughlin (1973)

107 1. Franciscan Complex
2. MR8176 (CJC-16A-SJ-91B)
3. Mt. Madonna 7.5' Quad., Lat. 37° 03' 45" N, Long. 121° 40' 23" W
4. Chert, bedded, red, associated with pelagic limestone
5. Cretaceous, Early
6. Hauterivian to Albian
108 1. Franciscan Complex
2. MR8175 (CJC-17-SJ-91B)
3. Mt. Madonna 7.5' Quad., Lat. 37° 03' 49" N, Long. 121° 40' 15" W
4. 
5. Chert, bedded, red, associated with pelagic limestone
6. 
7. Jurassic? or Cretaceous
8. Callovian to Albian
10. Radiolarians
11. Murchey, B., 1993
12. McLaughlin, R.J., 1991
13. Deep marine
14. Internal report

109 1. Franciscan Complex
2. MR7681 (S-89-26)
3. Mt. Madonna 7.5' Quad., Lat. 37° 04' 04" N, Long. 121° 41' 43" W
4. 
5. Chert, bedded, associated with pelagic limestone
6. 
7. Jurassic? early Middle or Cretaceous, Early
8. Probably Valanginian to Albian
10. Radiolarians
11. Murchey, B., 1993
13. Deep marine
14. Internal report

109 1. Franciscan Complex
2. S89-24 to S89-25
3. Mt. Madonna 7.5' Quad., Lat. 37° 04.07' N, Long. 121° 41.73' W, exposed in a 2m thick section at the crest of a small hill at Uvas Reservoir.
4. Calera Limestone; medium-grey limestone and black chert
5. Cretaceous
6. 
7. Barremian, late to Aptian, early
8. Globigerinelloides duboisii Zone to G. blowi Zone
9. Foraminifers (P)
10. Sliter, W.V., 1991
11. Sliter, W.V., 1989
12. Bathyal
110 1. Franciscan Complex
2. MR8177 (CJC-18, MSJ-91B)
3. Mt. Madonna 7.5' Quad., Lat. 37° 04' 44" N, Long. 121° 41' 03" W,
4. from Twin Peaks section above Uvas Reservoir
5. Chert, bedded, associated with pelagic limestone
6.
7. Cretaceous, Early
8. Barremian to Albian
10. Radiolarians
11. Murchey, B., 1993
12. McLaughlin, R.J., 1991
13. Deep marine
14. Internal report

111 1. Temblor Formation
2. Osbun 1-1
3. Loma Prieta 7.5' Quad., Lat. 37° 05' 28" N, Long. 121° 45' 02' W,
4. from conglomerate at base of formation, outcrop on north side of road to Sveadal
5. Limestone
6.
7. Eocene, early to middle
8.
9.
10. Foraminifers (L)
12. Osbun, E.D., 1971
13.
14. Blondeau and Brabb (1983); also see Osbun (1975)

112 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf1590 (EO 6-4)
3. Loma Prieta 7.5' Quad., Lat. 37° 04' 55" N, Long. 121° 47' 40" W
4.
5. Mudstone
6.
7. Eocene
8.
9.
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)

113 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf1591 (EO 7-1)
3. Loma Prieta 7.5' Quad., Lat. 37° 04' 43" N, Long. 121° 47' 32" W
4.
5. Mudstone
6. Radiolarians
7. Cretaceous to Eocene
8.
9.
Foraminifers (B)

13. Lower bathyal to abyssal biofacies (≥2000 m)

114 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf1052 (EB621A)
3. Loma Prieta 7.5' Quad., Lat. 37° 04' 54" N, Long. 121° 49' 00" W
4. Shale, greenish
6. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P8 to P9
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)

114 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf1052A (EB621B)
3. Loma Prieta 7.5' Quad., Lat. 37° 04' 54" N, Long. 121° 49' 00" W
4. 50 ft. stratigraphically above Mf1052
5. Shale, greenish
6. Planktic foraminifers, ostracodes
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P8 to P11
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)

115 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf1310 (69CB547)
3. Loma Prieta 7.5' Quad., Lat. 37° 04' 56" N, Long. 121° 49' 00" W
4. Mudstone
5. Planktic foraminifers
7. Eocene, early
8.
9.
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)
14. Internal report

116 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf1309 (69CB546)
3. Loma Prieta 7.5' Quad., Lat. 37° 04' 60" N, Long. 121° 49' 01" W
4. Similar to "Poppin Shale"
6. Planktic foraminifers
7. Paleocene or Eocene
8.
9.
10. Foraminifers (B)
13.
14. Internal report

117 1. Unnamed (Great Valley sequence, basal part)
  2. MR7625 (MSJ -81-88)
  3. Loma Prieta 7.5' Quad., Lat. 37° 06' 23" N, Long. 121° 51' 16" W
  4. Shale
  5. Jurassic?, Late?
  6.
  7. Radiolarians
  8.
  9.
  10. Radiolarians
  11. Murchey, B., 1993
  12. McLaughlin, R.J., 1988
  13. Deep marine
  14. Internal report

118 1. "Loma Prieta ophiolite"
  2. MR7593 (MSJ-225-88A)
  3. Loma Prieta 7.5' Quad., Lat. 37° 06' 33" N, Long. 121° 50' 38" W
  4. Tuffaceous chert, in upper part of ophiolite sequence
  5. Jurassic, Middle to Late
  6. Bajocian to Tithonian
  7.
  8. Radiolarians
  9.
  10. Radiolarians
  11. Murchey, B., 1993
  12. McLaughlin, R.J., 1988
  13. Deep marine
  14. Internal report

118 1. "Loma Prieta ophiolite"
  2. MR7594 (MSJ -225-88B)
  3. Loma Prieta 7.5" Quad., Lat. 37° 06' 33" N, Long. 121° 50' 38" W
  4. Tuffaceous chert, in upper part of ophiolite sequence
  5. Jurassic, Middle to Late
  6. Bajocian to Tithonian
  7.
  8. Radiolarians
  9.
  10. Radiolarians
  11. Murchey, B., 1993
  12. McLaughlin, R.J., 1988
13. Deep marine
14. Internal report

118 1. "Loma Prieta ophiolite"
2. MR7596 (MSJ-225-88D)
3. Loma Prieta 7.5' Quad., Lat. 37° 06' 33" N, Long. 121° 50' 38" W
4. Tuffaceous chert, in upper part of ophiolite sequence
5. Jurassic, Late
6. Oxfordian?
7. Correlative with Zone B? of Baumgartner, 1984
8. Radiolarians
9. Murchey, B., 1993
10. McLaughlin, R.J., 1988
11. Deep marine
12. Internal report

119 1. "Marine sandstone and shale" (Te2)
2. Mf1582A (TS-61, 69LP61)
3. Loma Prieta 7.5' Quad., Lat. 37° 06' 24" N, Long. 121° 49' 43" W
4. Shale
5. Planktic foraminifers and fish debris
6. Eocene
7. Foraminifers (B)
10. Lower bathyal to abyssal biofacies (≥2000 m)
11. Internal report; Simoni (1974); McDougall (1989)

120 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7474 (MSJ-66-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 06' 32" N, Long. 121° 48' 51" W
4. Mudstone
5. Planktic foraminifers
6. Eocene, early
7. Foraminifers (B)
8. McDougall, K., 1988
9. McLaughlin, R.J., 1988
10. Lower bathyal to abyssal biofacies (≥2000 m)
11. Internal report; McDougall (1989)

121 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7473 (MSJ-59-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 06' 34" N, Long. 121° 48' 21" W
4. Mudstone
5. Benthic and planktic foraminifers
7. Eocene, early
8.
9. CP11?
10. Calcareous nannofossils
12. McLaughlin, R.J., 1988
13.

122 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf2648 (RMH-15)
3. Loma Prieta 7.5' Quad., Lat. 37° 06' 49" N, Long. 121° 48' 23" W
4.
5. Mudstone, red and green mottled
6. Benthic foraminifers
7. Eocene, early
8.
9. P7 to P8
10. Foraminifers (P)
11. Poore, R., 1976
13.

123 1. Franciscan Complex
2. Mf7500 (MSJ-43-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 07' 16" N, 121° 48' 34" W,
4. at 1760' elevation
5. Calera Limestone; medium-gray, planktic foraminiferal biomicrite
6. Radiolarians
7. Cretaceous
8. Aptian
9. *Globigerinelloides algerianus* Zone to *Ticinella bejaouaensis* Zone
10. Foraminifers (P)
11. Sliter, W.V., 1988
12. McLaughlin, R.J., 1988
13. Bathyal
14. Internal report

124 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7471 (MSJ-36-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 07' 01" N, Long. 121° 49' 15" W
4.
5. Mudstone
6. Benthic and planktic foraminifers
7. Paleogene
8.
9. CP11?
10. Calcareous nannofossils
12. McLaughlin, R.J., 1988
13.
124 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mfl588A (TS-315)
3. Loma Prieta 7.5' Quad., Lat. 37° 06' 59" N, Long. 121° 49' 13" W
4. Mudstone
5. Planktic foraminifers, ostracodes and echinoid spines
6. Eocene, early
7. Penutian
8. Foraminifers (B)
9. Equivalent to planktic foraminiferal zones P8 to P9
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (>2000 m)

124 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mfl586A (LP-295)
3. Loma Prieta 7.5' Quad., Lat. 37° 07' 04" N, Long. 121° 49' 59" W
4. same locality as Mfl588A
5. Mudstone
6. Planktic foraminifers
7. Eocene
8. Penutian
9. Equivalent to planktic foraminiferal zones P8 to P9
10. Foraminifers (B)
13. Upper middle-bathyal biofacies (150-200 m)

125 1. "Cretaceous Shale" (Ku1); probably a younger Tertiary unit
2. Mfl586A (LP-295)
3. Loma Prieta 7.5' Quad., Lat. 37° 07' 04" N, Long. 121° 49' 59" W
4. 3,200 ft. S, 1,300 ft. E of NW corner of Sec. 26, T9S, R1E
5. Shale
6. Planktic foraminifers
7. Eocene
8. 9.
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)

125 1. "Cretaceous Shale" (Ku1); probably a younger Tertiary unit
2. Mf1587A (TS-295)
3. Loma Prieta 7.5' Quad., Lat. 37° 07' 04" N, Long. 121° 49' 59" W,
   same locality as Mf1586A
5. Shale
6. Planktic foraminifers
7. Eocene
8.
9.
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)

126 1. Conglomerate in "Mt. Chual" sequence
2. MR7627 (MSJ -25-88)
3. Loma Prieta 7.5' Quad., Lat. 37° 07' 05" N, Long. 121° 49' 57" W
4.
5. Chert, clasts in Tertiary conglomerate
6.
7. Jurassic, Late Middle
8. Bathonian to Callovian?
10. Radiolarians
11. Murchey, B., 1993
12. McLaughlin, R.J., 1988
13. Deep marine
14. Internal report

127 1. "Mottled mudstone of Mt. Chual" (Te1) (Formation 2 of Simoni, 1974)
2. Mf1583A (TS-273, 70LP273)
3. Loma Prieta 7.5' Quad., Lat. 37° 07' 04" N, Long. 121° 49' 57" W
4.
5. Mudstone
6. Planktic foraminifers, ostracodes and echinoid spines
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P8 to P9
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)

127 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf1584A (LP-273A)
3. Loma Prieta 7.5' Quad., Lat. 37° 07' 04" N, Long. 121° 49' 54" W,
4. same locality as Mf1583A
5. Mudstone
6. Planktic foraminifers, ostracodes, echinoid spines, fish debris
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P8 to P9
10. Foraminifers (B)
13. Lower bathyal to abyssal biofacies ($\geq 2000$ m)

127 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7453 (88KM-9)
3. Loma Prieta 7.5' Quad., Lat. 37° 07' 05" N, Long. 121° 49' 57" W
4. Mudstone, red mottled
5. Planktic foraminifers
6. Eocene
7. Penutian
8. Foraminifers (B)
9. McDougall, K., 1988
10. Internal report; McDougall (1989)

127 1. "Mottled mudstone of Mt. Chual" (Te1)
2. Mf7454 (88KM-10)
3. Loma Prieta 7.5' Quad., Lat. 37° 07' 06" N, Long. 121° 49' 55" W
4. Mudstone, green mottled
5. Planktic foraminifers
6. Eocene, early
7. Penutian
8. Foraminifers (B)
9. McDougall, K., 1988
10. Internal report; McDougall (1989)

128 1. "Mottled mudstone of Mt. Chual" (Te1) (Formation 2 of Simoni, 1974)
2. Mf1585A (LP-275, 70LP275)
3. Loma Prieta 7.5' Quad., Lat. 37° 07' 10" N, Long. 121° 49' 57" W
4. Mudstone
5. Cretaceous through Eocene, probably Eocene, early
6. Foraminifers (B)
13. Lower bathyal to abyssal biofacies (≥2000 m)

129
1. Formation 2 of Simoni (1974)
2. Mf2647 (RMH-3-71)
3. Santa Teresa 7.5' Quad., Lat. 37° 07' 39" N, Long. 121° 49' 31" W
4. Mudstone, red and green mottled
5. Benthic foraminifers
6. Eocene, early
7. P7 to P8
8. Foraminifers (P)
11. Internal report

130
1. Temblor Formation
2. Osbun 49-3
3. Loma Prieta 7.5' Quad., Lat. 37° 06' 16" N, Long. 121° 45' 41" W,
4. from conglomerate at base of formation, from nose of hill about 1160 ft. elevation
5. Limestone, clasts in conglomerate
6. Eocene, early to middle
7. Foraminifers (L)
9. Osbun, E.D., 1971
10. Blondeau and Brabb (1983); also see Osbun (1975)

131
1. Temblor Formation
2. Osbun 49-6
3. Loma Prieta 7.5' Quad., Lat. 37° 06' 18" N, Long. 121° 45' 30" W,
4. from conglomerate at base of formation, from nose of hill about 1160 ft. elevation
5. Limestone, clasts in conglomerate
6. Eocene, early to middle
7. Foraminifers (L)
9. Osbun, E.D., 1971
10. Blondeau and Brabb (1983); also see Osbun (1975)

132
1. Franciscan Complex
2. S84-32 to S84-35
3. Santa Theresa 7.5' Quad., Lat. 37° 09.80' N, Long. 121° 46.32' W,
4. 10m thick exposed in an abandoned quarry south of Calero Resevoir
5. Calera Limestone; light to dark grey limestone and black chert
6.
7. Cretaceous
8. Aptian, Albian, and Cenomanian
9. *Ticinella bejaouaensis* Zone to *Rotalipora cushmani* Zone
10. Foraminifers (P)
11. Sliter, W.V., 1984
12. Sliter, W.V., 1984
13. Bathyal

133 1. Franciscan Complex
2. MR7597 to MR7607
3. Santa Teresa Hills 7.5° Quad., Lat. 37° 09' 34" N, Long. 121° 52' 30" W,
4. roadcut on E side of road at curve
5. Chert, bedded, maroon, red and green
6.
7. Jurassic and Cretaceous
8. Pliensbachian, Toarcian, and Valanginian to Barremian
10. Radiolarians
11. Murchey, B., 1993
12. Murchey, B., 1970
13. Deep marine
14. Internal report

134 1. Franciscan Complex
2. S84-39 to S84-48
3. Los Gatos 7.5° Quad., Lat. 37° 11.25' N, Long. 121° 52.50' W, 11 m thick outcrop
4. exposed on the NE hillside of Mt. El Sombroso in the Ben Travato shear zone
5. Calera Limestone; light- to medium-grey limestone and black chert
6.
7. Cretaceous
8. Aptian and Albian
9. *Globigerinelloides algerianus* Zone and *Biticinella breggiensis* Zone
10. Foraminifers (P)
11. Sliter, W.V., 1984
12. Sliter, W.V., 1984
13. Bathyal

135 1. Franciscan Complex
2. S84-49
3. Los Gatos 7.5° Quad., Lat. 37° 12.05' N, Long. 121° 53.47' W, exposed in an
4. abandoned quarry about 400 m due east of locality 19 in the Ben Travato shear zone
5. Calera Limestone; light-grey, heavily fractured limestone blocks 1-3 m thick
6.
7. Cretaceous
8. Aptian
9. *Globigerinelloides algerianus* Zone
10. Foraminifers (P)
11. Sliter, W.V., 1984
12. Sliter, W.V., 1984
13. Bathyal
136 1. Franciscan Complex
2. S84-50
3. Los Gatos 7.5' Quad., Lat. 37° 12.03' N, Long. 121° 53.87' W, sm. 1 to 3m
4. exposures along Reynolds Stream SW of Hicks Rd. in the Ben Trovato shear zone
5. Calera Limestone; fractured and heavily-veined limestone and chert
6. Cretaceous
7. Aptian
8. *Globigerinelloides algerianus* Zone
9. Foraminifers (P)
10. Sliter, W.V., 1984
11. Sliter, W.V., 1984
12. Bathyal

137 1. Franciscan Complex
2. MR8397 (MSJ-209-90)
3. Los Gatos 7.5' Quad., Lat. 37° 12' 28" N, Long. 121° 55' 57" W
4. Chert, bedded, manganiferous
5. Jurassic, Late Middle
6. Bathonian or Callovian
8. Radiolarians
9. Murchey, B., 1993
10. McLaughlin, R.J., 1990
11. Deep marine
12. Internal report

138 1. Franciscan Complex
2. MR8395 (MSJ-184-90A)
3. Los Gatos 7.5' Quad., Lat. 37° 11' 16" N, Long. 121° 55' 35" W
4. Chert, bedded, lens in mélange
5. Jurassic, Middle
6. Bajocian?
8. Radiolarians
9. Murchey, B., 1993
10. McLaughlin, R.J., 1990
11. Deep marine
12. Internal report

138 1. Franciscan Complex
2. MR8400 (MSJ-184-90B)
3. Los Gatos 7.5' Quad., Lat. 37° 11' 16" N, Long. 121° 55' 34" W
4. Chert, bedded
5. Jurassic
6. Toarcian or Aalenian
10. Radiolarians
11. Murchey, B., 1993
12. McLaughlin, R.J., 1990
13. Deep marine
14. Internal report

138 1. Franciscan Complex
2. MR8402 (MSJ -182-90)
3. Los Gatos 7.5' Quad., Lat. 37° 11' 19" N, Long. 121° 55' 41" W
4. Chert, clasts in sandstone
5. Jurassic, Late or Cretaceous?, Early
6. Kimmeridgian/Tithonian or younger?
7. Correlative with lower MH-5 and possible reworking of MH-4; Murchey (1984)
8. Radiolarians
9. Murchey, B., 1993
10. McLaughlin, R.J., 1990
11. Deep marine
12. Internal report

139 1. Franciscan Complex
2. MR5565 (84S-55d)
3. Los Gatos 7.5' Quad., Lat. 37° 13.15' N, Long. 121° 55.58' W
4. Site S84-52 of Sliter on west side of Kennedy Rd.
5. Calera Limestone; chert possibly tuffaceous, at top of limestone sequence
6. Foraminifers (P) in adjacent strata
7. Cretaceous, Late
8. Turonian, late, to Coniacian
9. Dictyomitra koslovae
10. Radiolarians
11. Murchey, B., and Sliter, W.V., 1984
12. Murchey, B., 1984
13. Deep marine

139 1. Franciscan Complex
2. S84-52 to S84-57
3. Los Gatos 7.5' Quad., Lat. 37° 13.15' N, Long. 121° 55.58' W, 22m section in road cut on the western side of Kennedy Road east of Los Gatos
4. Calera Limestone; light-grey limestone and interbedded medium-grey chert
5. Cretaceous
6. Cenomanian to Turonian,
7. Rotalipora cushmani Zone to Marginotruncana sigali Zone
8. Foraminifers (P)
9. Sliter, W.V., 1984
10. Sliter, W.V., 1984
11. Bathyal
140 1. Temblor Formation
   2. Mf7659 (T-3[2])
   3. Los Gatos 7.5' Quad., Lat. 37° 12' 53" N, Long. 121° 53' 33" W
   4. Sandstone
   5. Unknown
   6. Foraminifers (B)
   7. McDougall, K., 1989
   8. McLaughlin, R.J., 1989
   9. Internal report

140 1. Temblor Formation
   2. Mf7669 (T-3 [1])
   3. Los Gatos 7.5' Quad., Lat. 37° 07' 58" N, Long. 121° 54' 36" W
   4. Sandstone
   5. Unknown
   6. Foraminifers (B)
   7. McDougall, K., 1989
   8. McLaughlin, R.J., 1989
   9. Internal report

141 1. Unnamed sedimentary rocks
   2. Mf2642 (71CB983A)
   3. Los Gatos 7.5' Quad., Lat. 37° 13' 27" N, Long. 121° 53' 17" W,
      one-half km northwest of LSJU locality 309
   4. Mudstone, green
   5. Benthic foraminifers and larger foraminifers
   6. Eocene, early?
   7. Foraminifers (P)
   8. Breggren, W.A.; reviewed by Poore, R.Z., 1977
   10. Bathyal
   11. Internal report; Brabb, Clark and Throckmorton (1977); Blondeau and Brabb (1983)

141 1. Unnamed strata
   2. 71CB983C
   3. Los Gatos 7.5' Quad., Lat. 37° 13.44' N, Long. 121° 53.29' W,
      a few centimeters from 71CB983A
   4. Limestone
   5. Eocene, middle
   6. Foraminifers (P)
10. Foraminifers (L)
13. 

142 1. "Mottled mudstone of Mt. Chual" (Te₁)
2. Mf7447 (88KM-3)
3. Santa Teresa Hills 7.5' Quad., Lat. 37° 13' 17" N, Long. 121° 50' 21" W
4.
5. Mudstone, green
6. Planktic foraminifers, ostracodes and echinoid spines
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P7 to P9
10. Foraminifers (B)
11. McDougall, K., 1988
12. McDougall, K., 1988
13. Lower bathyal to abyssal biofacies (≥2000 m)

142 1. "Mottled mudstone of Mt. Chual" (Te₁)
2. Mf7448 (88KM-4)
3. Santa Teresa Hills 7.5' Quad., Lat. 37° 13' 17" N, Long. 121° 50' 21" W
4.
5. Mudstone, green
6. Planktic foraminifers, ostracodes and fish teeth
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P7 to P9
10. Foraminifers (B)
11. McDougall, K., 1988
12. McDougall, K., 1988
13. Lower bathyal to abyssal biofacies (≥2000 m)

142 1. "Mottled mudstone of Mt. Chual" (Te₁)
2. Mf7449 (88KM-5)
3. Santa Teresa Hills 7.5' Quad., Lat. 37° 13' 17" N, Long. 121° 50' 21" W
4.
5. Mudstone, red
6. Planktic foraminifers, ostracodes and echinoid spines
7. Eocene, early
8. Penutian
9. Equivalent to planktic foraminiferal zones P7 to P9
10. Foraminifers (B)
11. McDougall, K., 1988
12. McDougall, K., 1988
13. Lower bathyal to abyssal biofacies (≥2000 m)

143 1. Unnamed shale, Santa Teresa Hills
2. Mf2051 (71CB977D)
3. Santa Teresa Hills 7.5' Quad., Lat. 37° 13' 00" N, Long. 121° 49' 31" W,
4. 0.9 km NW of Stile Ranch on east side of Buena Monte Drive
5. Shale, within thinly-bedded glauconite sandstone
6. Planktic and benthic foraminifers
7. Eocene, early
8.
9. *Discoasteroides lodoensis* Zone
10. Calcareous nannfossils
13.
14. Short, 1986; Bukry, Brabb and Vedder, 1977

144 1. Unnamed mudstone, Santa Teresa Hills
2. Mf2052 (71CB974)
3. Santa Teresa Hills 7.5' Quad., Lat. 37° 13' 08" N, Long. 121° 49' 21" W,
4. 0.4 km NE of Mf2051, on W side of Scenic Drive, opposite Dunkerel mailbox
5. Mudstone, olive-green
6. Planktic and benthic foraminifers
7. Eocene, early
8.
9. *Discoasteroides kuepperi* Subzone
10. Calcareous nannfossils
13.
14. Short, 1986; Bukry, Brabb and Vedder, 1977

145 1. Unnamed sedimentary rocks
2. 71CB971B
3. Santa Teresa Hills 7.5' Quad, Lat. 37° 47' 07" N, Long. 121° 13' 18" W,
4. from abandoned limestone quarry about 0.6 km east of the portal of Bernal Mine
5. Limestone
6.
7. Eocene
8.
9.
10. Foraminifers (L)
13.

146 1. Claremont Shale
2. Mf3340 (5-19-4)
3. Calaveras Reservoir 7.5' Quad., Lat. 37° 27' 01" N, Long. 121° 52' 20" W
4.
5. Shale
6.
7. Miocene, early to middle
8.
9.
10. Foraminifers (B)
11. McDougall, K., 1976

92
13. Internal report

147 1. Tice Shale
2. Mf3339 (5-19-3)
3. Calaveras Reservoir 7.5' Quad., Lat. 37° 26' 54" N, Long. 121° 52' 20" W
4. Shale
5. Planktic foraminifers
6. Miocene, middle
7. Luisian
8. Foraminifers (B)
11. Upper bathyal biofacies (150-500 m)
12. Internal report; Hill, 1979

148 1. Sobrante Formation
2. Mf3261 (11-18-4)
3. Calaveras Reservoir 7.5' Quad., Lat. 37° 26' 36" N, Long. 121° 51' 53" W,
4. Sec. 4, T6S, R1E, quarry on Calaveras Road
5. Siltstone
6. Miocene, middle
7. Relizian through Luisian
8. Foraminifers (B)
11. Upper bathyal or deeper biofacies (≥150 m)
12. Internal report

148 1. Unnamed sedimentary rocks
2. Mf7812 (91CB3041A)
3. Calaveras Reservoir 7.5' Quad., Lat. 37° 26' 36" N, Long. 121° 51' 53" W, along
4. quarry road
5. Interbedded carbonaceous shale, siltstone and sandstone
6. Radiolarians, fish debris
7. Cretaceous
8. Campanian to Maastrichtian
9. Possible E to D2 zones of Goudkoff
10. Foraminifers (B)
13. Bathyal
14. Internal report

148 1. Claremont Shale
2. Mf8046 (91CB3041B)
3. Calaveras Reservoir 7.5' Quad., Lat. 37° 26' 36" N, Long. 121° 51' 53" W, along Quarry Road in faulted section.
4. Siliceous mudstone
5.
7. Miocene
8.
9.
10. Foraminifers (B)
13.
14. Internal report

149 1. Berryessa Formation
2. N9-4-1
3. Calaveras Reservoir  7.5' Quad., Lat. 37° 23' 51" N, Long. 121° 47' 49" W, in Alum Rock Canyon
4. Siltstone
5. Cretaceous, Late
6. Cenomanian or Turonian
7. Calcareous nannofossils
8. Bukry, J.D.,

150 1. Claremont Shale (?)
2. Mf3263 (7-25-9)
3. Calaveras Reservoir  7.5' Quad., Lat. 37° 24' 03" N, Long. 121° 47' 44" W, measured section in Alum Rock Canyon
4. Shale
5. Planktic foraminifers, radiolarians
6. Miocene
7. Foraminifers (B)
8. McDougall, K., 1976
9. McDougall, K., 1976

150 1. Claremont Shale (?)
2. Mf3263 (7-25-9)
3. Calaveras Reservoir  7.5' Quad., Lat. 37° 24' 03" N, Long. 121° 47' 44" W, measured section in Alum Rock Canyon
4. Shale
5. Benthic foraminifers, radiolarians
6. Miocene, middle through late
7. Foraminifers (P)
10. Internal report; Hill (1979)
151 1. Franciscan Complex  
2. MR8375 (LO1219)  
3. Mt. Day 7.5' Quad., Lat. 37° 22' 36" N, Long. 121° 42' 39" W  
4.  
5. Chert, bedded  
6.  
7. Jurassic, Latest to Cretaceous, Early  
8. Kimmeridgian? to Barremian  
10. Radiolarians  
11. Murchey, B., 1993  
13. Deep marine  
14. Internal report

152 1. Franciscan Complex  
2. MR8374 (LO1163)  
3. Lick Observatory 7.5' Quad., Lat. 37° 20' 23" N, Long. 121° 42' 29" W  
4.  
5. Chert, red, bedded; radiolarians deformed  
6. Radiolarians  
7. Jurassic  
8. Bajocian?  
10. Radiolarians  
11. Murchey, B., 1993  
13. Deep marine  
14. Internal report

153 1. Berryessa Formation  
2. R1318 (317)  
3. Mt. Sizer 7.5' Quad., Lat. 37° 09' 48" N, Long. 121° 34' 25" W  
4.  
5. Shale  
6.  
7. Cretaceous, Late  
8. Campanian  
9.  
10. Foraminifers (B)  
11. Sliter, W.V., 1974; revised by McDougall, K., 1993  
13. Lower bathyal to abyssal biofacies (≥2000 m)  

154 1. "Larios Canyon Sandstone"  
2. R1320 (417)  
3. Mt. Sizer 7.5' Quad., Lat. 37° 09' 43" N, Long. 121° 34' 25" W  
4.  
5. Shale  
6.  
7. Probably Cretaceous, Late  
8.  
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974
13. Lower bathyal to abyssal biofacies (≥2000 m)

155 1. Unnamed mudstone
2. R1295 (21B)
3. Mt. Sizer 7.5' Quad., Lat. 37° 09' 57" N, Long. 121° 33' 57" W
4. 
5. Mudstone, red and green
6. 
7. Cretaceous or Tertiary, early
8. 
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

156 1. Unnamed mudstone
2. R1294 (20)
3. Mt. Sizer 7.5' Quad., Lat. 37° 09' 57" N, Long. 121° 33' 57" W
4. 
5. Mudstone, red and green
6. 
7. Probably Eocene, early
8. 
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

157 1. Unnamed mudstone
2. R1293 (16B)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 19" N, Long. 121° 33' 59" W
4. 
5. Mudstone, red and green
6. 
7. Probably Eocene, early
8. Probably Penutian
9. 
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

158 1. Unknown
2. A-9158
3. Mt. Sizer Quad., Lat. 37° 10' 19" N, Long. 121° 33' 55" W
4. Shale
5. Planktic foraminifers
6. Eocene
7. Penutian
8. Foraminifers (B)
9. Mallory, V.S., in Frames (1955); modified by McDougall, K., 1993
10. Warm, deep marine (lower bathyal to abyssal biofacies, ≥2000 m)
11. Frames (1955)

159 1. Unknown
2. A-9325
3. Mt. Sizer Quad., Lat. 37° 10' 15" N, Long. 121° 34' 11" W
4. Shale
5. Eocene
6. Foraminifers (B)
7. Mallory, V.S., in Frames (1955); modified by McDougall, K., 1993
8. Warm, deep marine (lower bathyal to abyssal biofacies, ≥2000 m)
9. Frames (1955)

160 1. Undifferentiated sedimentary rocks
2. R\1322 (561)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 47" N, Long. 121° 33' 44" W
4. Mudstone, red and green
5. Planktic foraminifers
6. Cretaceous or Tertiary undifferentiated
7. Sliter, W.V., 1974; revised McDougall, K., 1993
9. Lower bathyal to abyssal biofacies (≥2000 m)
10. Internal report; Bartsch-Winkler (1976)
11. Foraminifers (B)

161 1. Undifferentiated sedimentary rocks
2. R\1327 (590)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 18" N, Long. 121° 33' 19" W
4. Mudstone, red and green
5. Cretaceous or Tertiary undifferentiated
8. Foraminifers (B)
9. Sliter, W.V., 1974; revised by McDougall, K., 1993
11. Foraminifers (B)
12. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

162 1. Undifferentiated sedimentary rocks
2. R1330 (634)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 8" N, Long. 121° 33' 10" W
4.
5. Mudstone, red and green
6.
7. Cretaceous or Tertiary undifferentiated
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

163 1. Undifferentiated sedimentary rocks
2. R1328 (629)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 20" N, Long. 121° 33' 02" W
4.
5. Mudstone, red and green
6.
7. Cretaceous or Tertiary undifferentiated
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

163 1. Undifferentiated sedimentary rocks
2. R1329 (630)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 19" N, Long. 121° 32' 58" W
4.
5. Mudstone, red and green
6.
7. Cretaceous or Tertiary undifferentiated
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

164 1. Undifferentiated sedimentary rocks
2. R1337 (707)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 04" N, Long. 121° 32' 58" W
4.
5. Mudstone, red and green
6.
7. Tertiary, undifferentiated
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

164 1. Undifferentiated sedimentary rocks
2. R1338 (708)
3. Mt. Sizer 7.5' Quad., Lat. 37° 20' 05" N, Long. 121° 33' 01" W
4.
5. Mudstone, red and green
6.
7. Tertiary, undifferentiated
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974
13. Lower bathyal to abyssal biofacies (≥2000 m)

165 1. Undifferentiated sedimentary rocks
2. R1336 (706)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 03" N, Long. 121° 32' 40" W
4.
5. Mudstone, red and green
6.
7. Tertiary, undifferentiated
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

166 1. Undifferentiated sedimentary rocks
2. R1333 (702)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 03" N, Long. 121° 32' 27" W
4.
5. Mudstone, red and green
6.
7. Cretaceous or Tertiary undifferentiated
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974
13. Lower bathyal to abyssal biofacies (≥2000 m)
166 1. Undifferentiated sedimentary rocks
2. R1334 (703)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 02" N, Long. 121° 32' 03" W
4.
5. Mudstone, red and green
6.
7. Cretaceous or Tertiary undifferentiated
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

166 1. Undifferentiated sedimentary rocks
2. R1335 (704)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 02" N, Long. 121° 32' 37" W
4.
5. Mudstone, red and green
6.
7. Tertiary, undifferentiated
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

167 1. Undifferentiated sedimentary rocks
2. R1331 (700)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 10" N, Long. 121° 32' 22" W
4.
5. Mudstone, red and green
6.
7. Cretaceous or Tertiary undifferentiated
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

168 1. Claremont Shale
2. A-9168
3. Mt. Sizer Quad., Lat. 37° 10' 39" N, Long. 121° 32' 33" W
4.
5. Shale
6.
7. Eocene, middle
8. Penutian
9.
10. Foraminifers (B)
11. Kleinpell, R.M., in Frames (1955); modified by McDougall, K., 1993
13. Shallow warm water (outer neritic to upper bathyal biofacies, 100-500 m)
14. Frames (1955)

168 1. Sobrante Formation
2. Mf1847 (SB-71-81)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 31'' N, Long. 121° 32' 26'' W
4. Sandstone
5. Fish scales
6. Miocene
7. Saucian, Relizian, Luisian
8. Foraminifers (B)
10. Bartsch, S., 1971
11. Internal report

169 1. Undifferentiated sedimentary rocks
2. R1301 (137)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 57'' N, Long. 121° 32' 12'' W
4. Mudstone
5. Fish scales
6. Cretaceous or Tertiary, early
7. Foraminifers (B)
8. Sliter, W.V., 1974; revised by McDougall, K., 1993
10. Internal report; Bartsch-Winkler (1976)

170 1. Undifferentiated sedimentary rocks
2. R1302 (138)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 35'' N, Long. 121° 32' 05'' W
4. Mudstone
5. Fish scales
6. Cretaceous or Tertiary, early
7. Foraminifers (B)
8. Sliter, W.V., 1974; revised by McDougall, K., 1993
10. Internal report; Bartsch-Winkler (1976)

171 1. Undifferentiated sedimentary rocks
2. R1299 (91)
3. Mt. Sizer 7.5' Quad., Lat. 37° 10' 15'' N, Long. 121° 31' 53'' W
1. "Larios Canyon Sandstone"
2. R1303 (174)
3. Mt. Sizer 7.5' Quad., Lat. 37° 09' 24" N, Long. 121° 33' 11" W
4. Mudstone
5. Shale
6. Cretaceous or Tertiary, early
7. Foraminifers (B)
8. Sliter, W.V., 1974; revised by McDougall, K., 1993
10. Internal report; Bartsch-Winkler (1976)

173 1. "Larios Canyon Sandstone"
2. R1296 (26)
3. Mt. Sizer 7.5' Quad., Lat. 37° 09' 37" N, Long. 121° 33' 40" W
4. Mudstone and sandstone
5. Cretaceous, Late
6. Campanian, late or Maastrichtian
7. Foraminifers (B)
8. Sliter, W.V., 1974; revised by McDougall, K., 1993
10. Internal report; Bartsch-Winkler (1976)

174 1. Unnamed mudstone
2. R1304 (177)
3. Mt. Sizer 7.5' Quad., Lat. 37° 09' 23" N, Long. 121° 31' 12" W
4. Mudstone, red and green
5. Probably Eocene, early
6. Foraminifers (B)
7. Sliter, W.V., 1974; revised by McDougall, K., 1993
9. Internal report; Bartsch-Winkler (1976)
13. Lower bathyal to abyssal biofacies (>2000 m)

175 1. Berryessa Formation
2. R1309 (247)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 57" N, Long. 121° 34' 25" W
4. 
5. Shale
6. 
7. Cretaceous, Late
8. Probably Campanian, late
9. 
10. Foraminifers (B)
11. Sliter, W.V., 1974
13. 

176 1. "Larios Canyon Sandstone"
2. R1319 (405)
3. Mt. Sizer 7.5' Quad., Lat. 37° 09' 00" N, Long. 121° 33' 23" W
4. 
5. 
6. 
7. Probably Cretaceous, Late
8. 
9. 
10. Foraminifers (B)
11. Sliter, W.V., 1974
13. Lower bathyal to abyssal biofacies (>2000 m)

177 1. Berryessa Formation
2. R1308 (243)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 27" N, Long. 121° 33' 37" W
4. 
5. Shale
6. 
7. Cretaceous, late
8. Probably Campanian, late
9. 
10. Foraminifers (B)
11. Sliter, W.V., 1974
13. 

178 1. Berryessa Formation
2. R1306 (237)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 33" N, Long. 121° 33' 22" W
4. 
5. Shale
6. Probably Cretaceous, Late
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974
13.

179 1. Berryessa Formation
2. R1298 (80)
3. Mt. Sizer 7.5' Quad., Lat. 37° 09' 35" N, Long. 121° 33' 15" W
4.
5. Mudstone
6.
7. Cretaceous, Late
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974
13.

180 1. "Larios Canyon Sandstone"
2. R1305 (230)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 29" N, Long. 121° 33' 00" W
4.
5. Sandstone
6.
7. Cretaceous, Late
8. Campanian or Maastrichtian
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974
13.

181 1. Unnamed mudstone
2. R1317 (287)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 37" N, Long. 121° 32' 41" W
4.
5. Mudstone
6. Planktic foraminifers
7. Eocene, early
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)
182 1. Unnamed mudstone
2. R1316 (286)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 39" N, Long. 121° 32' 43" W
4.
5. Mudstone
6.
7. Probably Eocene, early
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

183 1. Unnamed mudstone
2. R1315 (285)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 44" N, Long. 121° 32' 47" W
4.
5. Mudstone
6.
7. Probably Eocene, early
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

184 1. "Larios Canyon Sandstone"
2. R1297 (45)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 37" N, Long. 121° 32' 52" W
4.
5. Mudstone and sandstone
6.
7. Cretaceous, Late
8. Campanian, late or Maastrichtian
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974
13.

185 1. Unnamed mudstone
2. R1313 (282)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 49" N, Long. 121° 32' 34" W
4.
5. Mudstone
6.
7. Cretaceous or Tertiary undifferentiated
8.
9. Foraminifers (B)
10. Sliter, W.V., 1974; revised by McDougall, K., 1993
12. Internal report; Bartsch-Winkler (1976)

185 1. Unnamed mudstone
2. R1314 (283)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 48" N, Long. 121° 32' 42" W
4. Mudstone
5. Probably Eocene, early
6.
7. Foraminifers (B)
8. Sliter, W.V., 1974; revised by McDougall, K., 1993
10. Lower bathyal to abyssal biofacies (≥2000 m)
11. Internal report; Bartsch-Winkler (1976)

186 1. Berryessa Formation
2. R1311 (280)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 50" N, Long. 121° 33' 22" W
4. Shale
5. Cretaceous or Paleocene undifferentiated
6.
7. Foraminifers (B)
8. Sliter, W.V., 1974
10. Internal report; Bartsch-Winkler (1976)

186 1. "Larios Canyon Sandstone"
2. R1312 (281)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 50" N, Long. 121° 32' 34" W
4. Shale
5. Cretaceous or Paleocene undifferentiated
6.
7. Foraminifers (B)
8. Sliter, W.V., 1974
10. Internal report; Bartsch-Winkler (1976)
187 1. Unnamed mudstone
2. R1300 (100)
3. Mt. Sizer 7.5' Quad., Lat. 37° 09' 09" N, Long. 121° 32' 03" W
4.
5. Mudstone, red and green
6.
7. Cretaceous or Paleogene
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974
13.

188 1. Unnamed mudstone
2. R1321 (550)
3. Mt. Sizer 7.5' Quad., Lat. 37° 09' 07" N, Long. 121° 32' 01" W
4.
5. Mudstone, red and green
6. Planktic foraminifers
7. Paleocene through Eocene
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (>2000 m)

189 1. Unnamed mudstone
2. R1310 (274)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 50" N, Long. 121° 32' 32" W
4.
5. Mudstone, red and green
6.
7. Unknown
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13.

190 1. Unnamed mudstone
2. R1325 (574)
3. Mt. Sizer 7.5' Quad., Lat. 37° 07' 54" N, Long. 121° 32' 11" W
4.
5. Mudstone, red and green
6.
7. Cretaceous or Tertiary undifferentiated
8.
9.
10. Foraminifers (B)
11. Sliter, W.V., 1974; revised by McDougall, K., 1993
13. Lower bathyal to abyssal biofacies (≥2000 m)

191 1. Unnamed mudstone
2. R1323 (572)
3. Mt. Sizer 7.5' Quad., Lat. 37° 07' 53" N, Long. 121° 32' 22" W
4. Mudstone, red and green
5. Paleocene or Eocene
6. Lower bathyal to abyssal biofacies (≥2000 m)
7. Internal report; Bartsch-Winkler (1976)

191 1. Unnamed mudstone
2. R1324 (573)
3. Mt. Sizer 7.5' Quad., Lat. 37° 08' 53" N, Long. 121° 32' 17" W
4. Mudstone, red and green
5. Cretaceous or Tertiary, early
6. Equivalent to planktic foraminiferal zones P8 to P9
7. Internal report; Bartsch-Winkler (1976)

192 1. "Mudstone of Nesbit Ridge" or "mudstone of Bolado Park"
2. A-9164
3. Mt. Sizer Quad., Lat. 37° 07' 49" N, Long. 121° 32' 21" W
4. from Nesbit Ridge
5. Shale
6. Eocene, early
7. Penutian
8. Equivalent to planktic foraminiferal zones P8 to P9
9. Internal report; Bartsch-Winkler (1976)

193 1. "Mudstone of Nesbit Ridge" or "mudstone of Bolado Park"
2. A-9166
3. Gilroy 7.5' Quad., Lat. 37° 06' 32" N, Long. 121° 31' 27" W,
4. from Sheep Ridge
5. Mudstone, red and green
6. Planktic foraminifers
7. Eocene, early to middle
8. Penutian, possibly Ulatisian
9.
10. Foraminifers (B)
13. Warm, deep marine (lower bathyal to abyssal, ≥2000 m)
14. Frames (1955); Carter, (1970); Bennett, (1972)

194  1. "Mudstone of Nesbit Ridge" or "mudstone of Bolado Park"
    2. A-9165
    3. Gilroy 7.5' Quad., Lat. 37° 06' 30" N, Long. 121° 31' 20" W,
    4. from Sheep Ridge
    5. Mudstone, red and green
    6. Planktic foraminifers
    7. Eocene, early
    8.
    9.
    10. Foraminifers (B)
    13. Warm, deep marine (lower bathyal to abyssal biofacies ≥2000 m)
    14. Frames (1955); Carter, (1970); Bennett, (1972)

195  1. Franciscan Complex
    2. MR8161 (89-MtB-1)
    3. Mt. Boardman 7.5' Quad., Lat. 37° 23' 32" N, Long. 121° 26' 58" W
    4.
    5. Chert, bedded, knocker in mélange belt
    6.
    7. Jurassic, late Middle
    8. Bathonian or Callovian
    10. Radiolarians
    11. Murchey, B., 1993
    12. Blake, M.C., Jr., 1989
    13. Deep marine
    14. Internal report

196  1. Franciscan Complex
    2. MR8159 (89-MS-33)
    3. Mt. Stakes 7.5' Quad., Lat. 37° 16' 45" N, Long. 121° 27' 06" W
    4.
    5. Chert, bedded
    6.
    7. Jurassic, Late or Cretaceous, Early
    8. Oxfordian? to Barremian
    10. Radiolarians
    11. Murchey, B., 1993
    12. Blake, M.C., Jr., 1989

109
13. Deep marine
14. Internal report

197 1. Franciscan Complex
2. MR8160 (90-MC-1)
3. Mississippi Creek 7.5' Quad., Lat. 37° 14' 25" N, Long. 121° 22' 35" W
4. Chert, bedded
5. Jurassic?
6.
7.
8.
9.
10. Radiolarians
11. Murchey, B., 1993
12. Blake, M.C., Jr., 1990
13. Deep marine
14. Internal report

198 1. Franciscan Complex
2. MR8163 (90-MP-22)
3. Mustang Peak 7.5' Quad., Lat. 37° 14' 37" N, Long. 121° 21' 22" W
4. Chert, bedded; deformed radiolarians
5. Mesozoic
6.
7.
8.
9.
10. Radiolarians
11. Murchey, B., 1993
12. Blake, M.C., Jr., 1990
13. Deep marine
14. Internal report

199 1. Franciscan Complex
2. MR8210 (92-MP-8)
3. Mustang Peak 7.5' Quad., Lat. 37° 20' 50" N, Long. 121° 12' 17" W
4. Chert, bedded
5. Jurassic or Cretaceous
6. Callovian to Albian
7.
8.
9.
10. Radiolarians
11. Murchey, B., 1993
12. Blake, M.C., Jr., 1992
13. Deep marine
14. Internal report

200 1. Franciscan Complex
2. MR7631 (89-MP-16A)
3. Mustang Peak 7.5' Quad., Lat. 37° 12' 11" N, Long. 121° 20' 52" W
4. Chert, bedded
5.
6.
7. Jurassic, latest Late or Cretaceous, Early
8. Tithonian? to Albian
10. Radiolarians
11. Murchey, B., 1993
12. Blake, M.C., Jr., 1988
13. Deep marine
14. Internal report

201 1. Franciscan Complex
2. MR7610 (88-MP-2C)
3. Mustang Peak 7.5' Quad., Lat. 37° 10' 37" N, Long. 121° 22' 23" W
4. Chert, bedded
5. Jurassic, Middle
6. Bajocian?, Bathonian or Callovian
8. Radiolarians
9. Murchey, B., 1993
10. Blake, M.C., Jr., 1988
11. Deep marine
12. Internal report

201 1. Franciscan Complex
2. MR7611 (88-MP-2B)
3. Mustang Peak 7.5' Quad., Lat. 37° 10' 37" N, Long. 121° 22' 23" W
4. Chert, bedded
5. Jurassic, Middle
6. Bajocian to Callovian
7. Correlative with MH-3 or MH-4 of Murchey (1984)
8. Radiolarians
9. Murchey, B., 1993
10. Blake, M.C., Jr., 1988
11. Deep marine
12. Internal report

201 1. Franciscan Complex
2. MR7630 (88-MP-2D)
3. Mustang Peak 7.5' Quad., Lat. 37° 10' 37" N, Long. 121° 22' 23" W
4. Chert, bedded
5. Jurassic, Middle
6. Probably Bajocian
8. Radiolarians
9. Murchey, B., 1993
10. Blake, M.C., Jr., 1988
11. Deep marine
12. Internal report
202 1. Franciscan Complex
2. MR8164 (91-MC-16A)
3. Mississippi Creek 7.5' Quad., Lat. 37° 08' 31" N, Long. 121° 24' 25" W
4. 
5. Chert, rip-up clasts in conglomerate of Franciscan Complex
6. 
7. Jurassic, Middle
8. Bajocian
10. Radiolarians
11. Murchey, B., 1993
12. Blake, M.C., Jr., 1991
13. Deep marine
14. Internal report

203 1. Franciscan Complex
2. MR8167 (91-GHS-2)
3. Gilroy Hot Spring 7.5' Quad., Lat. 37° 06' 59" N, Long. 121° 24' 41" W
4. 
5. Chert, bedded in melange block
6. 
7. Jurassic, Middle?
8. Bajocian? to Callovian?
10. Radiolarians
11. Murchey, B., 1993
12. Blake, M.C., Jr., 1991
13. Deep marine
14. Internal report

204 1. Franciscan Complex
2. MR8208 (92-MP-6)
3. Mustang Peak 7.5' Quad., Lat. 37° 08' 27" N, Long. 121° 20' 07" W
4. 
5. Chert, bedded, in mélange
6. 
7. Jurassic, Middle
8. Bajocian
10. Radiolarians
11. Murchey, B., 1993
12. Blake, M.C., Jr., 1992
13. Deep marine
14. Internal report

205 1. Franciscan Complex
2. MR8209 (92-MP-7a)
3. Mustang Peak 7.5' Quad., Lat. 37° 10' 07" N, Long. 121° 18' 50" W
4. 
5. Chert, bedded, in mélange
6. 
7. Jurassic to Cretaceous, Early
8. Not determined
9. 

112
10. Radiolarians
11. Murchey, B., 1993
12. Blake, M.C., Jr., 1992
13. Deep marine
14. Internal report

206 1. Franciscan Complex
2. MR8202 (92-MP-9)
3. Mustang Peak 7.5' Quad., Lat. 37° 08' 48" N, Long. 121° 18' 37" W
4. 
5. Chert, bedded
6. 
7. Jurassic
8. Toarcian to Bajocian
10. Radiolarians
11. Murchey, B., 1993
12. Blake, M.C., Jr., 1992
13. Deep marine
14. Internal report

207 1. Franciscan Complex
2. MR8203 (92-MP-11)
3. Mustang Peak 7.5' Quad., Lat. 37° 08' 52" N, Long. 121° 18' 16" W
4. 
5. Chert, bedded, red
6. 
7. Jurassic, Middle?
8. 
9.
10. Radiolarians
11. Murchey, B., 1993
12. Blake, M.C., Jr., 1992
13. Deep marine
14. Internal report

208 1. Franciscan Complex
2. MR8205 (92-MP-14A)
3. Mustang Peak 7.5' Quad., Lat. 37° 08' 10" N, Long. 121° 18' 49" W
4. 
5. Chert, bedded
6. 
7. Jurassic, Middle
8. Bajocian to Callovian
10. Radiolarians
11. Murchey, B., 1993
12. Blake, M.C., Jr., 1992
13. Deep marine
14. Internal report

209 1. Franciscan Complex
2. MR8206 (92-MP-15)
3. Mustang Peak 7.5' Quad., Lat. 37° 07' 51" N, Long. 121° 18' 44" W
4. Chert, bedded
5. Jurassic or Cretaceous, Early
6. Callovian to Albian
7. Radiolarians
8. Murchey, B., 1993
9. Blake, M.C., Jr., 1992
10. Deep marine
11. Internal report

210
1. Franciscan Complex
2. MR8406 (92-PP-3C)
3. Pacheco Peak 7.5' Quad., Lat. 37° 06' 24" N, Long. 121° 17' 47" W
4. Chert, bedded; 20m block in mélangé
5. Jurassic, Middle
6. Bajocian to Callovian
7. Radiolarians
8. Correlative with MH-3 or MH-4 of Murchey (1984)
9. Murchey, B., 1993
10. Blake, M.C., Jr., 1992
11. Deep marine
12. Internal report

211
1. Franciscan Complex
2. MR8371 (92-PP-1)
3. Pacheco Peak 7.5' Quad., Lat. 37° 05' 25" N, Long. 121° 17' 09" W
4. Chert, bedded
5. Jurassic, Middle
6. Bajocian to Callovian
7. Radiolarians
8. Correlative with MH-3 or MH-4 of Murchey (1984)
9. Murchey, B., 1993
10. Blake, M.C., Jr., 1992
11. Deep marine
12. Internal report

212
1. Panoche Formation
2. MF7741 (BX-130-1B)
3. Crevison Peak 7.5' Quad., Lat. 37° 14' 44.5" N, Long. 121° 12' 19" W
4. Shale
5. Radiolarians
6. Cretaceous or Paleogene
7. Foraminifers (B)
8. Sliter, W.V., 1992
9. Cox, B., 1992
10. Internal report
13. Internal report

212 1. Panoche Formation
2. Mf7742 (BX-130-1C)
3. Crevison Peak 7.5' Quad., Lat. 37° 14' 44.5" N, Long. 121° 12' 11.2" W
4. Shale
5. Cretaceous or Paleogene
10. Foraminifers (B)
11. Sliter, W.V., 1992
12. Cox, B., 1992
13. Internal report

213 1. Panoche Formation
2. Mf7730 (BX-101-1B)
3. Crevison Peak 7.5' Quad., Lat. 37° 14' 11" N, Long. 121° 12' 11.2" W
4. Shale
5. Radiolarians
6. Cretaceous or Paleogene
10. Foraminifers (B)
11. Sliter, W.V., 1992
12. Cox, B., 1992
13. Internal report

214 1. Moreno Formation
2. Mf7702 (BX-52-1)
3. Crevison Peak 7.5' Quad., Lat. 37° 14' 59.5" N, Long. 121° 09' 49.5" W
4. Sandstone, poorly laminated
5. Fish debris, *Inoceramus* prisms
6. Cretaceous
7. Maastrichtian
8. D1 to D2 zones of Goudkoff, probably D-1 based in abundance of *P. joaquinensis*
10. Foraminifers (B)
11. Sliter, W.V., 1992
12. Cox, B., 1992
13. Upper bathyal to outer neritic
14. Internal report

215 1. Panoche Formation
2. Mf7723 (BX-94-1A)
3. Crevison Peak 7.5' Quad., Lat. 37° 14' 14" N, Long. 121° 09' 47" W
4. Shale
5. Internal report
7. Cretaceous
8. Campanian to Maastrichtian

10. Foraminifers (P)
13. Bathyal
14. Internal report

216 1. Panoche Formation
2. Mf7709 (BX-88-2C)
3. Crevison Peak 7.5' Quad., Lat. 37° 14' 9.5" N, Long. 121° 10' 3.5" W
4.
5. Shale
6. Radiolarians, *Inoceramus* prisms
7. Cretaceous
8. Campanian
9. Probably lower E zone of Goudkoff
10. Foraminifers (B)
13.
14. Internal report

216 1. Moreno Formation
2. Mf7699 (BX-18-3)
3. Crevison Peak 7.5' Quad., Lat. 37° 13' 48.9" N, Long. 121° 08' 37.1" W
4.
5. Shale
6. Radiolarians, fish debris
7. Cretaceous
8. Campanian to Maastrichtian
9.
10. Foraminifers (B)
11. Sliter, W.V., 1992
12. Cox, B., 1992
13. Bathyal
14. Internal report

116
218 1. Moreno Formation
2. Mf7697 (BX-17-3)
3. Crevison Peak 7.5' Quad., Lat. 37° 13' 57.8" N, Long. 121° 07' 28.5" W
4. Shale
5. Diatoms
6. Cretaceous
7. Maastrichtian
8. D-1 zone of Goudkoff
9. Foraminifers (B)
10. Sliter, W.V., 1992
11. Cox, B., 1992
12. Bathyal
13. Internal report

219 1. Kreyenhagen Shale
2. Mf7756 (BX-165-5A)
3. Howard Ranch 7.5' Quad., Lat. 37° 13' 02" N, Long. 121° 05' 37.5" W
4. Shale
5. Radiolarians
6. Cretaceous or Paleogene
7. Foraminifers
8. Sliter, W.V., 1992
9. Cox, B., 1992
10. Bathyal
11. Internal report

220 1. Moreno Formation
2. DMG-SOL 111
3. Patterson 7.5' Quad., Lat. 37° 25' 38" N, Long. 121° 12' 03" W,
4. along Salado Creek Road
5. Claystone
6. Radiolarians
7. Cretaceous
8. Maastrichtian
9. D-2 zone of Goudkoff
10. Foraminifers (B)
11. Bishop, C.C., 1970
12. Bishop, C.C., 1970
13. Bathyal

221 1. Moreno Formation
2. DMG-BG 101
3. Patterson 7.5' Quad., Lat. 37° 27' 12" N, Long. 121° 12' 52" W,
4. near head of Blade Gulch
5. Claystone
6. *Inoceramus* prisms, sponge spicules, radiolarians
7. Cretaceous
8. Maastrichtian
9. D-2 zone of Goudkoff, probably
10. Foraminifers (B)
11. Bishop, C.C., 1970
12. Bishop, C.C., 1970
13. Bathyal

222 1. Panoche Formation
2. DMG-DP 302
3. Patterson 7.5' Quad., Lat. 37° 28' 26" N, Long. 121° 14' 16" W,
4. along road in Del Puerto Canyon
5. Sandstone
6.
7. Cretaceous
8. Campanian
9. E zone of Goudkoff
10. Foraminifers (B)
11. Bishop, C.C., 1970
12. Bishop, C.C., 1970
13. Bathyal

223 1. Moreno Formation
2. DMG-DP 108
3. Patterson 7.5' Quad., Lat. 37° 28' 37" N, Long. 121° 13' 58" W,
4. from north side of Del Puerto Canyon
5. Claystone
6.
7. Cretaceous
8. Campanian, probably
9. E zone of Goudkoff
10. Foraminifers (B)
11. Bishop, C.C., 1970
12. Bishop, C.C., 1970
13. Bathyal

224 1. Moreno Formation
2. DMG-DP 715
3. Patterson 7.5' Quad., Lat. 37° 28' 51" N, Long. 121° 14' 08" W,
4. just north of Del Puerto Canyon
5. Claystone
6. *Inoceramus* prisms, sponge spicules and radiolarians
7. Cretaceous
8. Maastrichtian
9. D-2 of Goudkoff, probably
10. Foraminifers (B)
11. Bishop, C.C., 1970
12. Bishop, C.C., 1970
13. Bathyal

225 1. Moreno Formation
2. DMG-DP 707
3. Patterson 7.5' Quad., Lat. 37° 28' 51" N, Long. 121° 14' 08" W,
4. just north of Del Puerto Canyon
5. Claystone
6. *Inoceramus* prisms, sponge spicules and radiolarians
7. Cretaceous
8. Maastrichtian
9. D-2 of Goudkoff, probably
10. Foraminifers (B)
11. Bishop, C.C., 1970
12. Bishop, C.C., 1970
13. Bathyal

226 1. Moreno Formation
2. DMG-DP 403-404
3. Patterson 7.5' Quad., Lat. 37° 28' 52" N, Long. 121° 13' 30" W,
4. north side of Del Puerto Canyon
5. Claystone
6. Cretaceous
7. Maastrichtian
8. C and/or D-1 zone of Goudkoff
9. Foraminifers (B)
10. Bishop, C.C., 1970
11. Bishop, C.C., 1970
12. Bathyal