February 8, 1988

Dr. Gary Brewer
Minerals Management Service
Pacific OCS Office
1340 West Sixth Street
Los Angeles, CA 90017

*CALIFORNIA MONITORING PROGRAM
(CAMP) SANTA MARIA BASIN*

Re: **MMS Contract No. 14-12-0001-30262**

Dear Gary:

As we discussed on the telephone, a number of steps were necessary for final processing of the CAMP data for year one. These steps prevented us from sending you the data on January 29, as originally planned. We have now completed the final processing, however, and have enclosed a tape of the data with this letter.

The data are recorded on a 9 track tape in ASCII. The recording density is 1600 bpi. Each type of data is recorded as a separate file, and the format of each file is adapted to the data type. Each file is recorded in 132 character fixed length records, and the block size is 1320 characters. All data are derived from observations made and samples collected on cruises CAMP 1-1, CAMP 1-2, and Physical Oceanography Cruise 1. The accompanying table describes each of the files, which are keyed (where appropriate) to chapters of the Year-One Annual Report.

Please let me know if you have any difficulty reading the tape or would like any additional description of the data. We would also be happy to send subsets or all of the data to other parties at your request, and to prepare map or other presentations or analyses of the data that would be of assistance to you in your work.

Sincerely,

Harold Petersen, Ph.D.
Director, Marine Information Science

enclosures

cc: Dr. Jeffrey Hyland (w/o tape)

no ref # assigned File 14

File Name: STATION.DAT

Description: This file contains data for all stations visited *238 rec* during year one of the California OCS Monitoring Program.

File Format:

Parameter	Columns	Format
Cruise	2:4	3
Leg	7:7	1
Station	10:13	4
Replicate	16:16	1
Sampling Method	19:21	3
Year	24:25	2
Month	28:29	2
Day	32:33	2
Hour	36:37	2
Minute	38:39	2
Depth	42:47	6.1
Degree Latitude	50:51	2
Minute Latitude	54:59	6.3
Hemisphere	62:62	1
Degree Longitude	65:67	6.3
Minute Longitude	70:75	6.3
Hemisphere	78:78	1

File Name: SAMPTYPE_CODES.DAT

no ref # assig File 8 ?
117 rec

Description: This file contains sample type codes assigned to represent sampling activities during year one of the California OCS Monitoring Program. These codes can be used to translate the sample type codes contained in the files listed below.

File Format:

Parameter	Columns	Format
Sample Type Code	2:3	2
Description	7:66	60

File Name: INFAUNA.DAT   *L0090l*   *File 6*

Description: This file contains data derived from the analysis
                  of infauna samples taken from box cores during
                  year one of the California OCS Monitoring Program.

                  These data correspond with Chapters 3 and 4 of the
                  California OCS Phase II Monitoring Program:
                  Year-One Annual Report.   *21626 rec*

File Format:

Parameter	Columns	Format
Cruise	2:4	3
Station	7:10	4
Replicate	13:13	1
Sample Number	16:21	6
Sample Type Code	24:25	2
Infauna Code	28:32	5
Count	35:44	10
Comment	47:81	35

File Name: INFAUNA_CODES.DAT   *L0090l*   *File 7*

Description: This file contains infauna codes and descriptions. *1473 rec*

File Format:

Parameter	Columns	Format
Infauna Code	2:6	5
Description	9:43	35

File Name: EPIFAUNA.DAT   *L0090l*

Description: This file contains hard-bottom epifaunal data
                  derived from the analysis of photographs taken
                  using a ROV during year one of the California OCS
                  Phase II Monitoring Program.

These data correspond with Chapter 5 of the
California OCS Phase II Monitoring Program:
Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	1:3	3
Station	6:9	4
Replicate	12:12	1
Dive	15:16	2
Frame_Time	19:23	5
Quadrat	26:28	2
Relief	31:37	7
Epifauna Code	40:46	7
Count	49:55	7.2
% Cover	58:62	5.2

File 3

11,559 rec

File Name: EPIFAUNA_CODES.DAT

L00901 File 4

Description: This file contains epifauna code descriptions.

208 rec

File Format:

Parameter	Columns	Format
Epifauna Code	2:8	7
Description	11:50	40

File Name: SED_ALKANES.DAT

L00903 File 10

197 rec

Description: This file contains data on the concentration of
saturated hydrocarbons derived from the analysis
of sediment and pore water samples taken from box
cores during year one of the California OCS
Monitoring Program.

These data correspond with Chapter 6 of the
California OCS Phase II Monitoring Program:
Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	1:3	3
Station	6:9	4
Replicate	12:12	1

```
              Sample Number               15:20           6
              Sample Type Code            23:24           2
              TALK                        27:32           6.2
              LALK                        35:39           5.2
              LALK/LALK+HALK              42:49           8.4
              Pristane                    52:58           7.4
              Phytane                     60:67           7.4
              Pristane/Phytane            69:75           6.3
              Tot (Res+UCM)               78:85           8.3
              UCM                         88:95           8.3
              Iso/Alk                     98:104          7.4
```

File Name: TISS_ALKANES.DAT   *LO0903* ✓ *File 15*
                                                         30 rec

Description: This file contains data on the concentration of
                   saturated hydrocarbons derived from the analysis
                   of tissue samples taken from traps during year one
                   of the California OCS Monitoring Program.

                   These data correspond with Chapter 6 of the
                   California OCS Phase II Monitoring Program:
                   Year-One Annual Report.

File Format:

```
              Parameter                   Columns         Format
              Cruise                      1:3             3
              Station                     6:9             4
              Sample Number               12:17           6
              Sample Type Code            20:21           2
              TALK                        24:28           6.2
              LALK                        31:35           5.2
              LALK/LALK+HALK              38:45           8.4
              Pristane                    48:54           7.4
              Phytane                     57:63           7.4
              Pristane/Phytane            66:71           6.3
              Tot (Res+UCM)               74:81           8.3
              UCM                         84:91           8.3
              Iso/Alk                     94:100          7.4
```

File Name: SED_AROMATICS.DAT   *LO0903* ✓ *File 11*
                                                         194 rec

Description: This file contains data on the concentration of
                   aromatic hydrocarbons derived from the analysis of
                   sediment and pore water samples taken from box
                   cores during year one of the California OCS
                   Monitoring Program.

These data correspond with Chapter 6 of the
California OCS Phase II Monitoring Program:
Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	1:3	3
Station	6:9	4
Replicate	12:12	1
Sample Number	15:20	6
Sample Type Code	23:24	2
N	27:35	9.6
F	38:46	9.6
P	49:57	9.6
D	60:68	9.6
PAH	71:79	9.6
N+F+P+D+PAH	82:90	9.6
P/D	93:103	11.6
N/P	106:114	9.6
FFPI	117:122	6.4

File Name: TISS_AROMATICS.DAT   L00903 ✓ File 16 29rel

Description: This file contains data on the concentration of
aromatic hydrocarbons derived from the analysis of
tissue samples taken from traps during year one of
the California OCS Monitoring Program.

These data correspond with Chapter 6 of the
California OCS Phase II Monitoring Program:
Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	1:3	3
Station	6:9	4
Replicate	12:12	1
Sample Number	15:20	6
Sample Type Code	23:24	2
N	27:35	9.6
F	38:46	9.6
P	49:57	9.6
D	60:68	9.6
PAH	71:79	9.6
N+F+P+D+PAH	82:90	9.6
P/D	93:103	11.6
N/P	106:114	9.6
FFPI	117:122	6.4

File Name: TISS_UVF.DAT

Description: This file contains data on the concentration of 2- to 5-ringed aromatic hydrocarbons derived from the analysis of sediment samples taken from box cores during year one of the California OCS Monitoring Program.

These data correspond with Chapter 6 of the California OCS Phase II Monitoring Program: Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	2:4	3
Station	7:10	4
Replicate	13:13	1
Sample Number	16:21	6
Sample Type	24:25	2
Wet Weight	28:33	6.2
Units	36:36	1
Oil Conc @ 312nm	39:44	6.2
Units	47:51	5
Oil Conc @ 355nm	54:59	6.2
Units	62:66	5
Oil Conc @ 425nm	69:74	6.2
Units	77:81	5

File Name: SED_METALS.DAT

Description: This file contains data on the concentration of trace metals in sediment and pore water samples taken from box cores during year one of the California OCS Monitoring Program.

These data correspond with Chapter 7 of the California OCS Phase II Monitoring Program: Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	2:4	3
Station	7:10	4
Replicate	13:13	1
Sample Number	16:21	6
Sample Type	24:25	2

AG	28:34	7.3
AS	37:43	7.3
BA	46:52	7.3
CD	55:61	7.3
CR	64:70	7.3
CU	73:79	7.3
HG	82:88	7.3
NI	91:97	7.3
PB	100:106	7.3
V	109:115	7.3
ZN	118:124	7.3

File Name: TISS_METALS.DAT   *L00904* ✓ File 17
                                                        27 rec

Description: This file contains data on the concentration of
                 trace metals in tissue samples taken from traps
                 during year one of the California OCS Monitoring
                 Program.

                 These data correspond with Chapter 7 of the
                 California OCS Phase II Monitoring Program:
                 Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	2:4	3
Station	7:10	4
Replicate	13:13	1
Sample Number	16:21	6
Sample Type	24:25	2
AG	28:34	7.3
AS	37:43	7.3
BA	46:52	7.3
CD	55:61	7.3
CR	64:70	7.3
CU	73:79	7.3
HG	82:88	7.3
NI	91:97	7.3
PB	100:106	7.3
V	109:115	7.3
ZN	118:124	7.3

File Name: SED_PBTH.DAT   *L00905*   File 13 ✓
                                                               91 rec

Description: This file contains data on the activity of
                 radioisotopes in sediment cores collected during
                 year one of the California OCS Monitoring Program.

Page 7

These data correspond with Chapter 7 of the
California OCS Phase II Monitoring Program:
Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	2:4	3
Station	7:10	4
Replicate	13:13	1
Sample Number	16:21	6
Sample Type	24:25	2
Dry Weight	28:32	5.2
Pb 210	35:39	5.2
Th 228	42:46	5.2
Th 230	49:53	5.2
Th 232	56:60	5.2
Th 234	63:67	5.2

File Name: CTD.DAT   File 2   203   L00900

Description: This file contains salinity, temperature, and
                sigma_t data recorded using a CTD during year one
                of the California OCS Monitoring Program.

                These data correspond with Chapter 8 of the
                California OCS Phase II Monitoring Program:
                Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	2:4	3
Station	7:10	4
Replicate	13:13	1
Depth	16:21	6.2
Units	24:24	1
Salinity	27:31	5.2
Sigma T	34:38	5.2
Temperature	41:45	5.2
Units	48:48	1

L00906

File Name: WATER_QUALITY.DAT

Description: This file contains water quality data derived from
                the analysis of water samples collected by

bottle-cast during year one of the California OCS
Monitoring Program.

These data correspond with Chapter 8 of the
California OCS Phase II Monitoring Program:
Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	2:4	3
Station	7:10	4
Replicate	13:13	1
Depth	16:16	1
DO	19:24	6.3
Nitrate	27:32	6.3
Nitrite	35:40	6.3
pH	43:48	6.3
Phosphate	51:56	6.3
Salinity	59:64	6.3
Silicate	67:72	6.3

File Name: GRAIN_SIZE.DAT

Description: This file contains grain size data derived from
              the analysis of sediment samples taken from box
              cores during year one of the California OCS
              Monitoring Program.

              These data correspond with Chapter 9 of the
              California OCS Phase II Monitoring Program:
              Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	1:3	3
Station	6:9	4
Replicate	12:12	1
Sample Number	15:20	6
Sample Type	23:24	2
1 Phi	27:33	7.3
2 Phi	36:42	7.3
3 Phi	45:51	7.3
4 Phi	54:60	7.3
5 Phi	63:69	7.3
6 Phi	72:78	7.3
7 Phi	81:87	7.3
8 Phi	90:96	7.3
9 Phi	99:105	7.3
10 Phi	108:114	7.3

File Name: SEDPHYS.DAT

Description: This file contains pH, shear stress, and redox
               data derived from the analysis of sediment samples
               taken from box cores during year one of the
               California OCS Monitoring Program.

               These data correspond with Chapter 9 of the
               California OCS Phase II Monitoring Program:
               Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	2:4	3
Station	7:10	4
Replicate	13:13	1
Sample Number	16:21	6
Sample Type	24:25	2
Parameter	28:29	2
Value	32:40	9.3
Units	43:45	3
Depth	48:49	2
Units	52:53	2

File Name: CARTOC.DAT   File 1

Description: This file contains carbonate and TOC data derived
               from the analysis of sediment samples taken from
               box cores during year one of the California OCS
               Monitoring Program.

               These data correspond with Chapter 9 of the
               California OCS Phase II Monitoring Program:
               Year-One Annual Report.

File Format:

Parameter	Columns	Format
Cruise	2:4	3
Station	7:10	4
Replicate	13:13	1
Sample Number	16:21	6
Sample Type	24:25	2
Carbonate	28:32	5.2
TOC	35:39	5.2

```
13:27:53.42, request 346 was completed by operator _OPA0:
_OPA0:

  Tape TAPE1 is now available on drive msa0.   When done using
the tape, type:        DEALLOCATE TAPEUNIT
$mount/foreign tapeunit xxx tapein
%MOUNT-I-WRITELOCK, volume is write locked
%MOUNT-I-MOUNTED, XXX mounted on _MSA0:
$opinfo tape2 ringin 1600 unstored
Account NM9 is allowed to use UNSTORED tape TAPE2
Tape TAPE2 will be mounted at 1600 BPI on tape drive msb0
Waiting for tape TAPE2 to be mounted on drive msb0
MC
13:29:07.09, request 347 was completed by operator _OPA0:
_OPA0:

  Tape TAPE2 is now available on drive msb0.   When done using
the tape, type:        DEALLOCATE TAPEUNIT
$initialize/density=1600 tapeunit qqq
$mount/foreign tapeunit qqq tapeout
%MOUNT-I-MOUNTED, QQQ mounted on _MSB0:
$run sd:tapecopy
    TAPECOPY [87154:16]

Tapecopy:
copy

>>> End of FILE    1  contained    19 blocks <<<
    minimum record length  528,  maximum record length  1320.

>>> End of FILE    2  contained    21 blocks <<<
    minimum record length  396,  maximum record length  1320.

>>> End of FILE    3  contained  1156 blocks <<<
    minimum record length 1188,  maximum record length  1320.

>>> End of FILE    4  contained    21 blocks <<<
    minimum record length 1056,  maximum record length  1320.

>>> End of FILE    5  contained    18 blocks <<<
    minimum record length  264,  maximum record length  1320.

>>> End of FILE    6  contained  2163 blocks <<<
    minimum record length  792,  maximum record length  1320.

>>> End of FILE    7  contained   148 blocks <<<
    minimum record length  396,  maximum record length  1320.

>>> End of FILE    8  contained    12 blocks <<<
    minimum record length  924,  maximum record length  1320.

>>> End of FILE    9  contained   149 blocks <<<
    minimum record length  132,  maximum record length  1320.

>>> End of FILE   10  contained    20 blocks <<<
    minimum record length  264,  maximum record length  1320.

>>> End of FILE   11  contained    20 blocks <<<
```

TAPE DOCUMENTATION

```
    minimum record length  528,  maximum record length  1320.

>>> End of FILE   12  contained    23 blocks <<<
    minimum record length 1320,  maximum record length  1320.

>>> End of FILE   13  contained    10 blocks <<<
    minimum record length  132,  maximum record length  1320.

>>> End of FILE   14  contained    24 blocks <<<
    minimum record length 1056,  maximum record length  1320.

>>> End of FILE   15  contained     3 blocks <<<
    minimum record length 1320,  maximum record length  1320.

>>> End of FILE   16  contained     3 blocks <<<
    minimum record length 1188,  maximum record length  1320.

>>> End of FILE   17  contained     3 blocks <<<
    minimum record length  924,  maximum record length  1320.

>>> End of FILE   18  contained     3 blocks <<<
    minimum record length 1188,  maximum record length  1320.

>>> End of FILE   19  contained     4 blocks <<<
    minimum record length 1320,  maximum record length  1320.

>>> End of FILE   20  contained     0 blocks <<<

>>> DOUBLE END OF FILE <<<
  Total bytes read=  5032236   total bytes written=  5032236
Tapecopy:
compare
COMPARE IS OK - the first part of record 1 for TAPEIN and TAPEOUT is equal
Tapecopy:
exit

 end of TAPECOPY
$exit
  NM9          job terminated at 25-JUL-1989 13:34:31.21

  Accounting information:
  Buffered I/O count:         216    Peak working set size:   377
  Direct I/O count:          7806    Peak page file size:    1058
  Page faults:               1126    Mounted volumes:           2
  Charged CPU time:    0 00:00:31.39 Elapsed time:    0 00:24:03.98
```