



September 8, 2005

Harris County MUD #69
c/o Aqua Services
Attn: Board of Directors
11100 Brittmoore
Houston, Texas 77041

Reference: Water Well #1- Performance Testing

Members of the Board,

Collection and evaluation of field data pertaining to the operation of the well and well pumping equipment was recently completed at the facility referenced above. Included in this report please find the test results and pump curve generated by the testing. Historical performance data is presented in graphical format.

PERFORMANCE TEST REVIEW								
Hydraulic Performance of pump is 1047 GPM @ 370' field head	Excellent	<input checked="" type="checkbox"/>	Good	<input type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Overall efficiency is 61 percent	Excellent	<input type="checkbox"/>	Good	<input type="checkbox"/>	Satisfactory	<input checked="" type="checkbox"/>	Poor	<input type="checkbox"/>
Pump Submergence 73 feet	Excellent	<input type="checkbox"/>	Good	<input checked="" type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Vibration Analysis	Excellent	<input type="checkbox"/>	Good	<input checked="" type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Suspended Solids Testing	Excellent	<input type="checkbox"/>	Good	<input checked="" type="checkbox"/>	Marginal	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Brass Observed in SST	None	<input checked="" type="checkbox"/>	Trace	<input type="checkbox"/>	Substantial	<input type="checkbox"/>	Excessive	<input type="checkbox"/>
Flowmeter Accuracy is 97.9 percent								

The test indicates the pump appears to be operating in satisfactory condition.

We appreciate this opportunity to be of service. If you have any questions or comments, please call.

Sincerely,
Gary McMurrey



Performance Test Report

P.O. Box 690309

Houston, Texas 77269

Telephone 281.894.8971

Facility Harris County M.U.D. #69 - well #1	Test Date 08/22/05
U.S.G.S. # LJ-65-03-615	

PUMP DATA

Manufacturer : Floway
 Bowl Type : 12 LKM
 Stages : 7
 Setting : 420
 Column Size : 8" X 2 1/2" X 1 1/2"
 Design Point : 1000 GPM @ 389' TDH

MOTOR DATA

Manufacturer : U.S. Motors
 Size (HP) : 200
 Amps/Volts : 228/460
 Serial # : R-6377-08-424
 Frame : 445TPA
 Speed (RPM) : 1770

PERFORMANCE TEST DATA

Static Lvl (ft)-317

Discharge Pressure	10	40
Capacity (GPM)	1047	852
Pumping Lvl (ft)	-347	-342
Drawdown (ft)	30	25
Specific Capacity	34.90	34.08
Field Head (ft)	370.1	434.4
Water Horsepower	97.72	93.46
Overall Efficiency	61%	61%
Horsepower Input	158.92	153.698
Kilowatt Input	118.6	114.7
Amp Draw	183-160-160	179-156-155
Voltage	486-477	482-472
Sand (PPM)	1	1
Time (min)	45	15

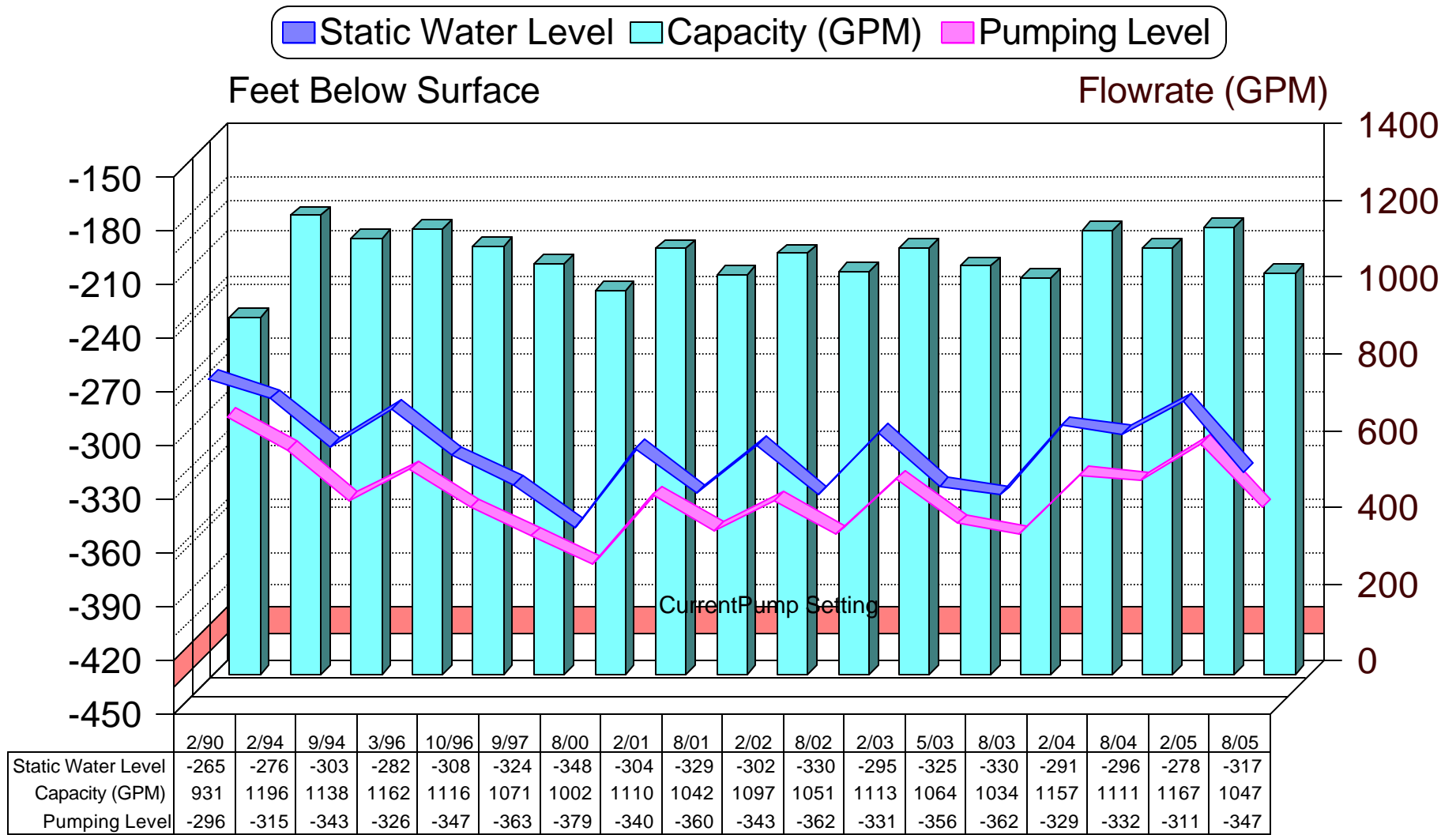
Additional Data

Pump Submergence (ft)	73	Brass Detect	No	Airline Functional	Yes
KWH/Million Gallons	1,887.93	ETM Read	3692	Right Angle Drive	Yes
Start-up Sand (PPM)	5	Meter Read	663289	Meter Accuracy	97.9%
Flowmeter registers 1025 GPM at 10 PSI discharge pressure.					

Remarks:

Harris County M.U.D. #69

Well #1

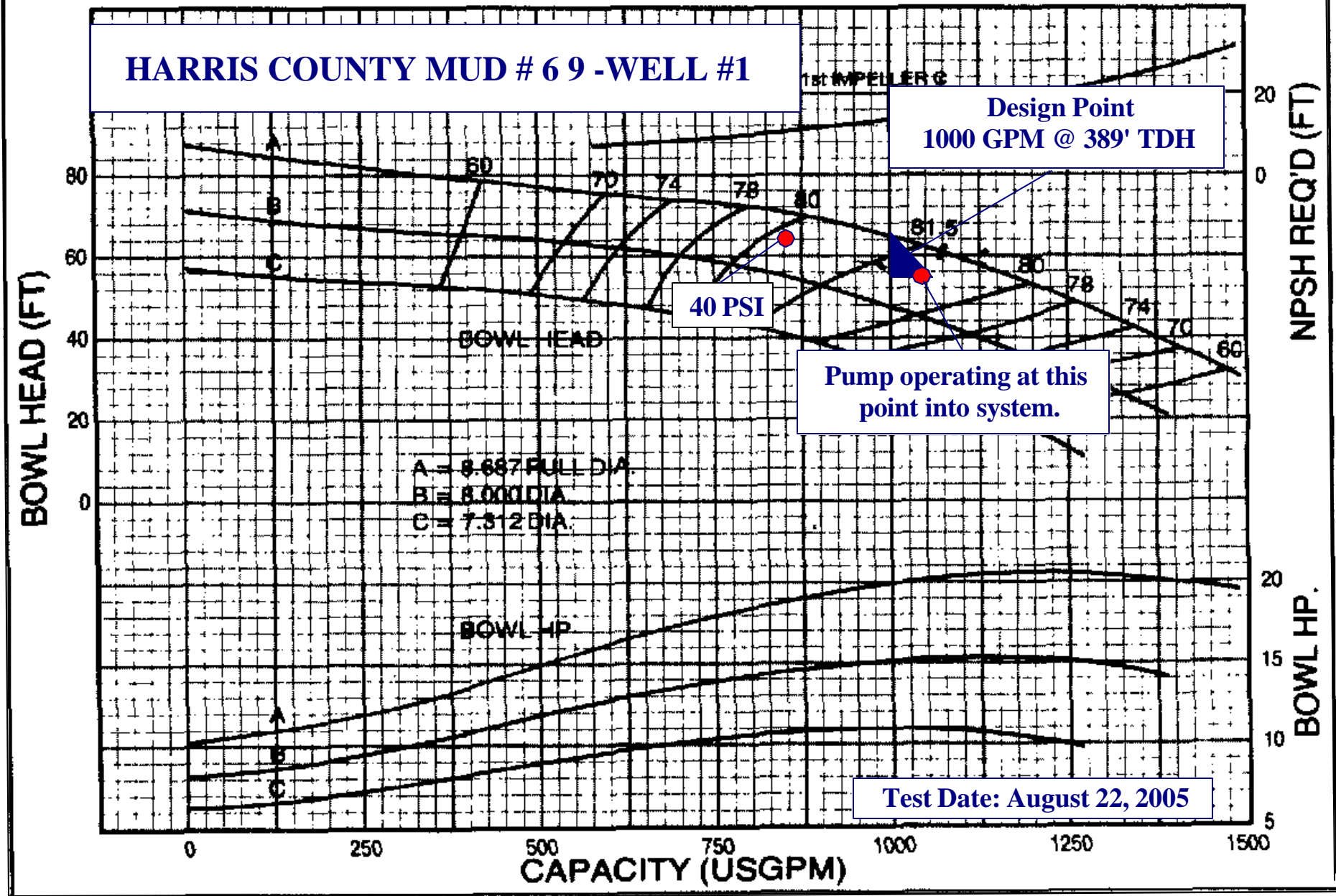


12LKM

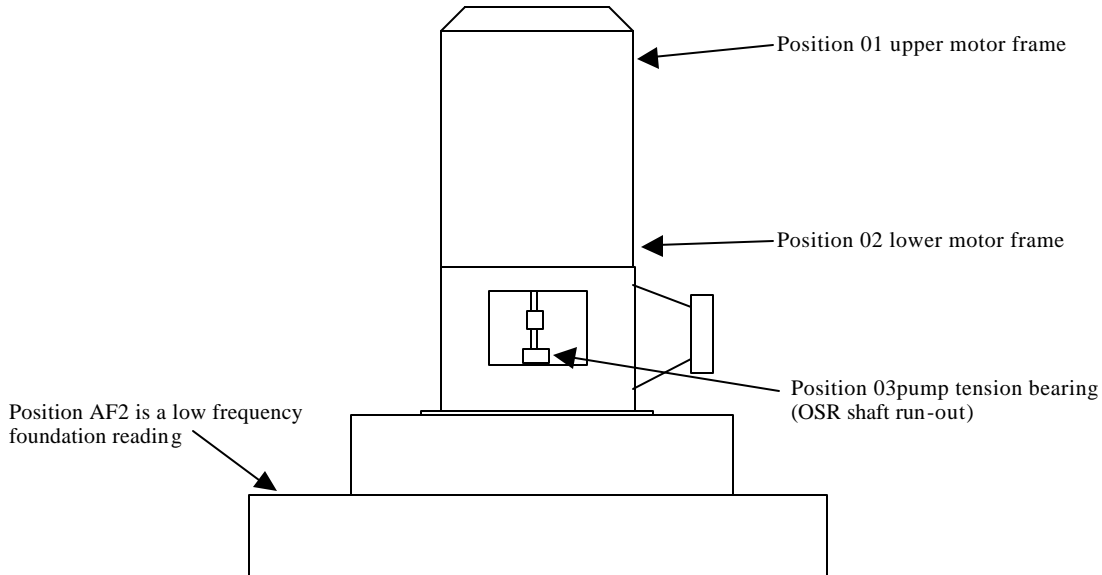
ENCLOSED TYPE IMPELLER

1770 RPM

PER STAGE PERFORMANCE



VIBRATION ANALYSIS DATA TYPE 3 Machine



Explanation of vibration Identification System

First digit is measurement location

Second digit is direction

01 = upper motor bearing

1 = horizontal

02 = lower motor bearing

2 = vertical

03 = pump tension bearing

3 = axial

Example: Position 022 is the lower motor bearing vertical direction.
 Position 031 is the pump tension bearing horizontal direction.

Measurement points are taken at each bearing. The points are numbered starting at the driver and ending at the driven end.

Note: Position AF2 is an acceleration reading on the pump foundation (axial position)
Position OSR is a shaft rider reading at the top of the tension bearing.

Abbreviated Last Measurement Summary

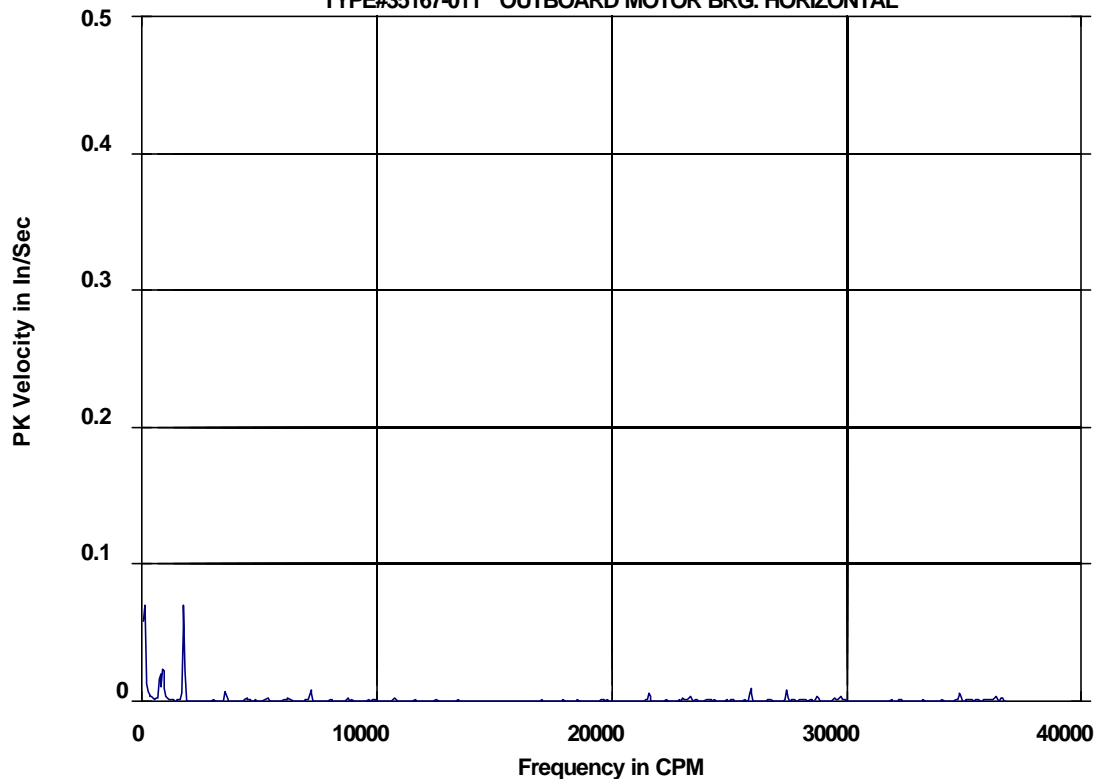
Database: C:\PMDATA\2004.DAT
 Station: Type 3A
 Report Date: 07-SEP-05 22:59

MEASUREMENT POINT	OVERALL LEVEL	HFD / VHFD
TYPE#35167 - Harris Co MUD #69 well#1	(22-AUG-05)	
	OVERALL LEVEL	1. - 20KHZ
011 - OUTBOARD MOTOR BRG. HORIZONTAL	.116 In/Sec	.856 G-s
012 - OUTBOARD MOTOR BRG. VERTICAL	.053 In/Sec	.378 G-s
013 - OUTBOARD MOTOR BRG. AXIAL	.038 In/Sec	.428 G-s
021 - INBOARD MOTOR BRG. HORIZONTAL	.114 In/Sec	.508 G-s
022 - INBOARD MOTOR BRG. VERTICAL	.061 In/Sec	.165 G-s
023 - INBOARD MOTOR BRG. AXIAL	.040 In/Sec	.119 G-s
031 - INBOARD PUMP BRG. HORIZONTAL	.046 In/Sec	.275 G-s
033 - INBOARD PUMP BRG. AXIAL	.041 In/Sec	.790 G-s
A11 - OUTBOARD MOTOR BRG. ACCELERATION	1.201 G-s	
A21 - INBOARD MOTOR BRG. ACCELERATION	.185 G-s	
A31 - INBOARD PUMP BRG. ACCELERATION	.490 G-s	
AF2 - LOW FREQUENCY ACCEL. ON FOUNDAT.	.0053 G-s	
OSR - SHAFT RIDER RADIAL	2.536 In/Sec	2.419 G-s

Clarification Of Vibration Units:

G-s PK
 In/Sec PK

4 - Harris Co MUD #69 well#1
 TYPE#35167-011 OUTBOARD MOTOR BRG. HORIZONTAL



LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-011 --> OUTBOARD MOTOR BRG. HORIZONTAL
 Date/Time: 22-AUG-05 11:02:22 RPM= 1800. Units=In/Sec PK

PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE
1	134.7	.0719	.075	13	10767.9	.0031	5.982
2	435.8	.0037	.242	14	21584.1	.0061	11.991
3	487.5	.0034	.271	15	23005.8	.0025	12.781
4	769.1	.0216	.427	16	23370.0	.0043	12.983
5	900.3	.0269	.500	17	25914.3	.0095	14.397
6	1786.7	.0755	.993	18	27460.0	.0097	15.256
7	3573.3	.0085	1.985	19	28721.1	.0035	15.956
8	4479.1	.0027	2.488	20	29489.0	.0028	16.383
9	5358.0	.0022	2.977	21	29768.5	.0037	16.538
10	6251.9	.0027	3.473	22	34805.7	.0073	19.337
11	7191.8	.0083	3.995	23	36352.9	.0032	20.196
12	8765.2	.0023	4.870	24	36597.9	.0023	20.332

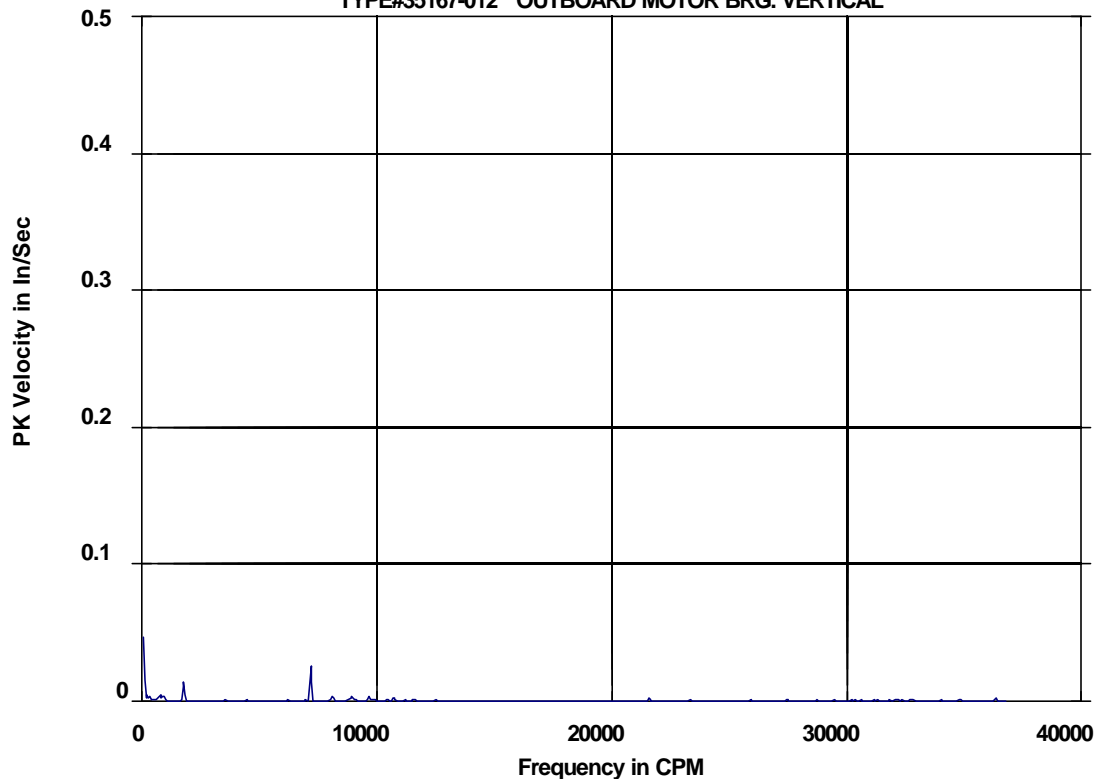
TOTAL MAG .1123
 (ELECTRICAL= 0.00E+00/ 0%

SUBSYNCHRONOUS .0799 / 51%
 FLOOR= .0085

SYNCHRONOUS .0768 / 47%

NONSYNCHRONOUS .0179 / 3%
 SPEC CREST= 2.31)

4 - Harris Co MUD #69 well#1
 TYPE#35167-012 OUTBOARD MOTOR BRG. VERTICAL



Route Spectrum
 22-AUG-05 11:02:36
 OVRALL= .0528 V-DG
 PK = .0528
 LOAD = 100.0
 RPM = 1800.
 RPS = 30.00

LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-012 --> OUTBOARD MOTOR BRG. VERTICAL
 Date/Time: 22-AUG-05 11:02:36 RPM= 1800. Units=In/Sec PK

PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE
1	237.2	.0054	.132	13	9841.6	.0022	5.468
2	309.9	.0036	.172	14	10728.3	.0024	5.960
3	483.6	.0018	.269	15	11599.7	.0015	6.444
4	533.6	.0017	.296	16	21585.8	.0027	11.992
5	770.2	.0048	.428	17	23370.4	.0013	12.984
6	906.6	.0041	.504	18	25914.9	.0010	14.397
7	1786.4	.0155	.992	19	27450.1	.0013	15.250
8	7194.9	.0261	3.997	20	30371.6	.0011	16.873
9	8126.3	.0045	4.515	21	32159.5	.0016	17.866
10	8782.9	.0011	4.879	22	32771.7	.0010	18.207
11	8965.6	.0041	4.981	23	34806.8	.0018	19.337
12	9659.3	.0042	5.366	24	36358.1	.0022	20.199

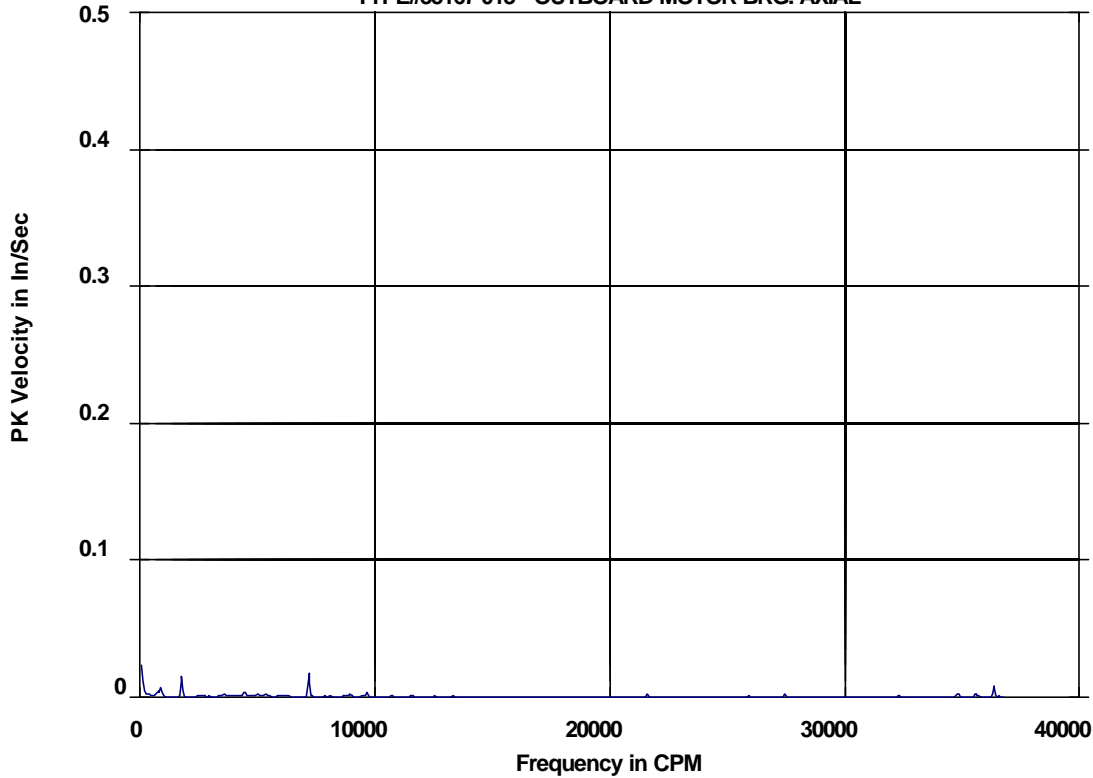
TOTAL MAG .0332
 (ELECTRICAL= 0.00E+00/ 0%

SUBSYNCHRONOUS .0094 / 8%

SYNCHRONOUS .0306 / 85%
 FLOOR= .0060

NONSYNCHRONOUS .0087 / 7%
 SPEC CREST= 1.61)

4 - Harris Co MUD #69 well#1
 TYPE#35167-013 OUTBOARD MOTOR BRG. AXIAL



Route Spectrum
 22-AUG-05 11:02:50
 OVRALL= .0379 V-DG
 PK = .0380
 LOAD = 100.0
 RPM = 1800.
 RPS = 30.00

LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-013 --> OUTBOARD MOTOR BRG. AXIAL
 Date/Time: 22-AUG-05 11:02:50 RPM= 1800. Units=In/Sec PK

PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE
1	220.4	.0056	.122	13	5142.3	.0019	2.857
2	313.4	.0030	.174	14	5372.1	.0021	2.985
3	425.3	.0019	.236	15	6106.7	.0019	3.393
4	498.2	.0017	.277	16	7196.0	.0173	3.998
5	768.9	.0051	.427	17	8125.9	.0016	4.514
6	898.8	.0085	.499	18	8975.8	.0023	4.987
7	1786.5	.0170	.993	19	9666.1	.0046	5.370
8	3581.6	.0023	1.990	20	21588.0	.0022	11.993
9	3759.4	.0019	2.089	21	27459.6	.0023	15.255
10	4453.8	.0041	2.474	22	34808.2	.0042	19.338
11	4862.9	.0019	2.702	23	35583.4	.0032	19.769
12	5043.6	.0024	2.802	24	36354.5	.0084	20.197

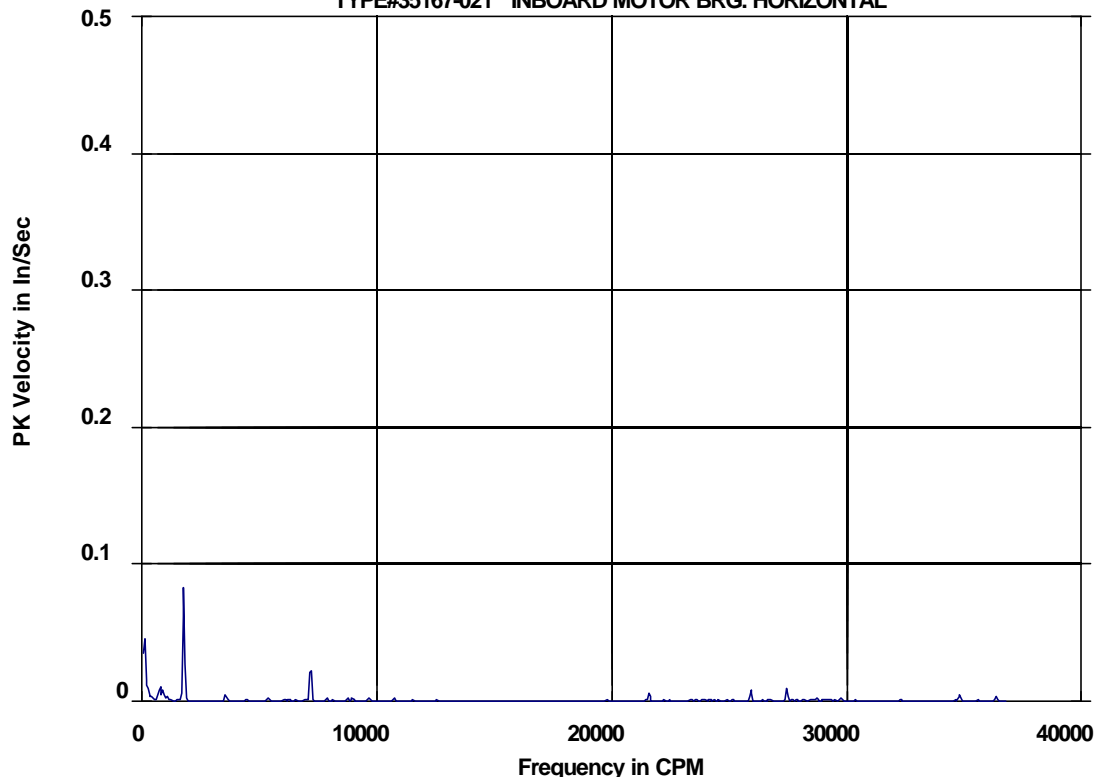
TOTAL MAG .0303
 (ELECTRICAL= 0.00E+00/ 0%

SUBSYNCHRONOUS .0121 / 16%
 FLOOR= .0083

SYNCHRONOUS .0246 / 66%

NONSYNCHRONOUS .0129 / 18%
 SPEC CREST= 1.38)

4 - Harris Co MUD #69 well#1
 TYPE#35167-021 INBOARD MOTOR BRG. HORIZONTAL



LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-021 --> INBOARD MOTOR BRG. HORIZONTAL
 Date/Time: 22-AUG-05 11:03:04 RPM= 1800. Units=In/Sec PK

PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE
1	137.8	.0454	.077	13	8976.1	.0028	4.987
2	254.5	.0115	.141	14	9666.2	.0030	5.370
3	432.3	.0033	.240	15	10767.8	.0027	5.982
4	490.8	.0029	.273	16	21590.4	.0054	11.995
5	770.5	.0113	.428	17	23375.2	.0022	12.986
6	901.0	.0090	.501	18	25922.4	.0082	14.401
7	1061.7	.0037	.590	19	27461.6	.0110	15.256
8	1787.0	.0883	.993	20	28735.1	.0025	15.964
9	3573.1	.0055	1.985	21	29767.9	.0028	16.538
10	5376.8	.0034	2.987	22	32304.1	.0019	17.947
11	6093.4	.0028	3.385	23	34815.7	.0054	19.342
12	7219.3	.0270	4.011	24	36359.2	.0039	20.200

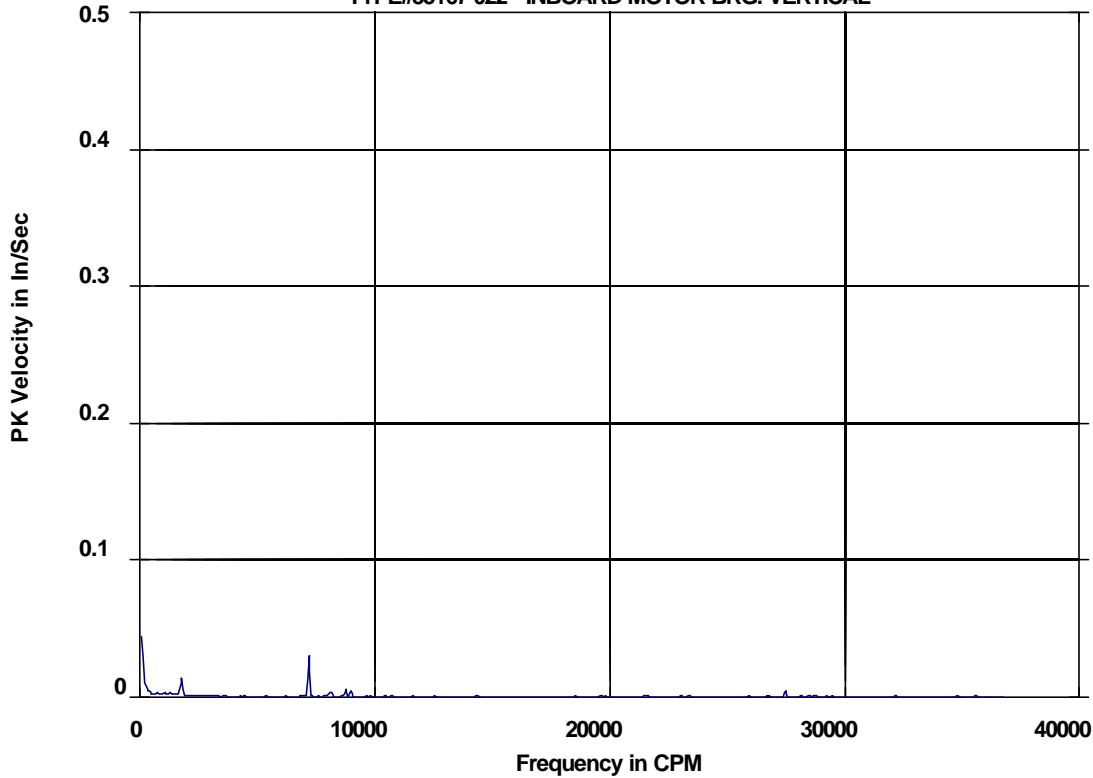
TOTAL MAG .1064
 (ELECTRICAL= 0.00E+00/ 0%

SUBSYNCHRONOUS .0494 / 22%
 FLOOR= .0104

SYNCHRONOUS .0928 / 76%

NONSYNCHRONOUS .0163 / 2%
 SPEC CREST= 1.97)

4 - Harris Co MUD #69 well#1
 TYPE#35167-022 INBOARD MOTOR BRG. VERTICAL



LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-022 --> INBOARD MOTOR BRG. VERTICAL
 Date/Time: 22-AUG-05 11:03:56 RPM= 1800. Units=In/Sec PK

PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE
1	116.3	.0423	.065	13	2513.5	.0017	1.396
2	257.5	.0101	.143	14	2654.0	.0016	1.474
3	436.8	.0053	.243	15	2786.1	.0015	1.548
4	666.1	.0033	.370	16	2837.0	.0014	1.576
5	725.9	.0036	.403	17	7200.0	.0301	4.000
6	1076.2	.0034	.598	18	8133.2	.0047	4.518
7	1313.8	.0035	.730	19	8768.2	.0053	4.871
8	1360.6	.0034	.756	20	8973.3	.0050	4.985
9	1636.8	.0023	.909	21	23385.3	.0024	12.992
10	1788.9	.0158	.994	22	27472.1	.0045	15.262
11	2099.1	.0015	1.166	23	28482.7	.0016	15.824
12	2465.6	.0017	1.370	24	34839.0	.0019	19.355

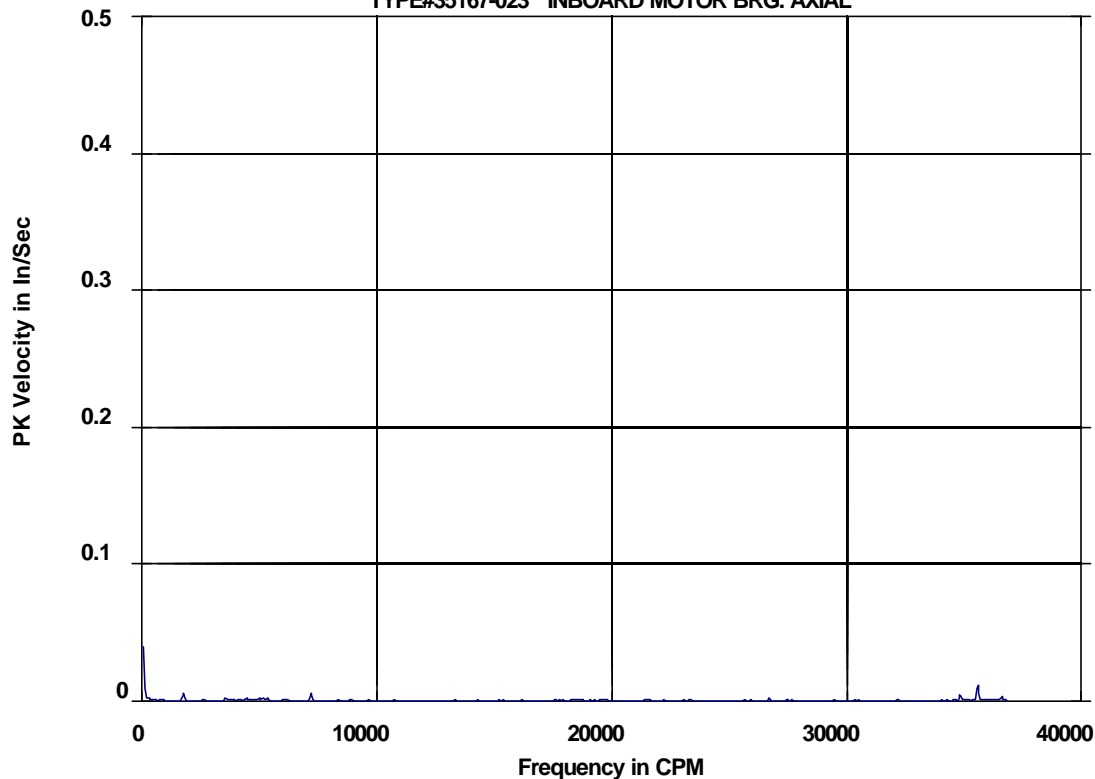
TOTAL MAG .0571
 (ELECTRICAL= 0.00E+00/ 0%

SUBSYNCHRONOUS .0445 / 61%
 FLOOR= .0128

SYNCHRONOUS .0345 / 36%

NONSYNCHRONOUS .0096 / 3%
 SPEC CREST= 1.52)

4 - Harris Co MUD #69 well#1
 TYPE#35167-023 INBOARD MOTOR BRG. AXIAL



Route Spectrum
 22-AUG-05 11:03:38
 OVRALL= .0400 V-DG
 PK = .0402
 LOAD = 100.0
 RPM = 1800.
 RPS = 30.00

LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-023 --> INBOARD MOTOR BRG. AXIAL
 Date/Time: 22-AUG-05 11:03:38 RPM= 1800. Units=In/Sec PK

PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE
1	307.8	.0028	.171	13	6250.1	.0017	3.472
2	402.1	.0019	.223	14	7198.3	.0059	3.999
3	617.1	.0015	.343	15	8903.9	.0015	4.947
4	768.3	.0016	.427	16	19569.9	.0014	10.872
5	1786.8	.0068	.993	17	19665.0	.0015	10.925
6	3570.4	.0023	1.984	18	22246.3	.0014	12.359
7	3671.8	.0019	2.040	19	23375.2	.0016	12.986
8	4452.7	.0021	2.474	20	26685.2	.0021	14.825
9	4633.4	.0018	2.574	21	32166.6	.0017	17.870
10	5036.2	.0020	2.798	22	34824.1	.0064	19.347
11	5146.9	.0021	2.859	23	35587.4	.0123	19.771
12	5361.5	.0019	2.979	24	36607.9	.0040	20.338

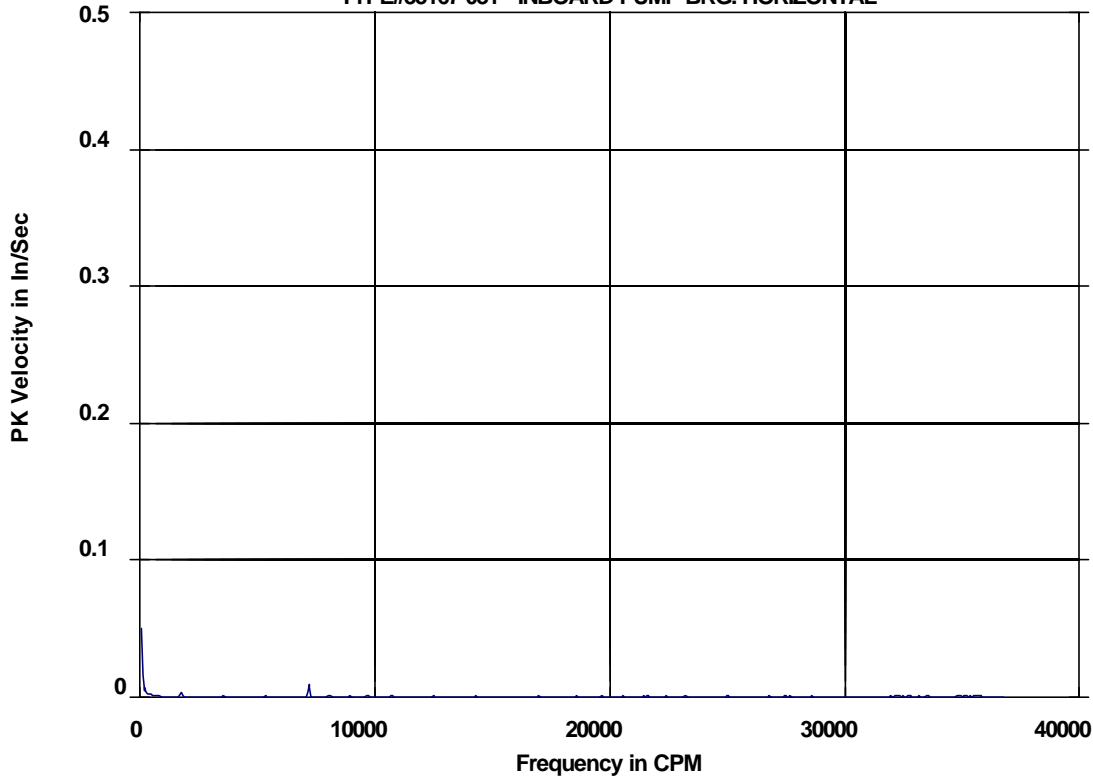
TOTAL MAG .0189
 (ELECTRICAL= 0.00E+00/ 0%

SUBSYNCHRONOUS .0040 / 4%

SYNCHRONOUS .0094 / 25%
 FLOOR= .0091

NONSYNCHRONOUS .0158 / 70%
 SPEC CREST= 1.33)

4 - Harris Co MUD #69 well#1
 TYPE#35167-031 INBOARD PUMP BRG. HORIZONTAL



Route Spectrum
 22-AUG-05 11:04:16
 OVRALL= .0460 V-DG
 PK = .0461
 LOAD = 100.0
 RPM = 1800.
 RPS = 30.00

LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-031 --> INBOARD PUMP BRG. HORIZONTAL
 Date/Time: 22-AUG-05 11:04:16 RPM= 1800. Units=In/Sec PK

PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE
1	236.4	.0078	.131	13	19662.3	.0016	10.923
2	302.7	.0045	.168	14	21597.3	.0015	11.998
3	492.1	.0024	.273	15	23237.9	.0014	12.910
4	773.1	.0012	.429	16	25029.0	.0012	13.905
5	883.9	.0009	.491	17	26811.0	.0010	14.895
6	962.1	.0009	.535	18	27465.9	.0014	15.259
7	1786.7	.0044	.993	19	27698.2	.0009	15.388
8	3575.6	.0010	1.986	20	32263.8	.0010	17.924
9	7199.3	.0091	4.000	21	34840.2	.0016	19.356
10	8979.4	.0012	4.989	22	35154.3	.0012	19.530
11	9670.8	.0024	5.373	23	35620.3	.0010	19.789
12	10726.2	.0010	5.959	24	35725.1	.0012	19.847

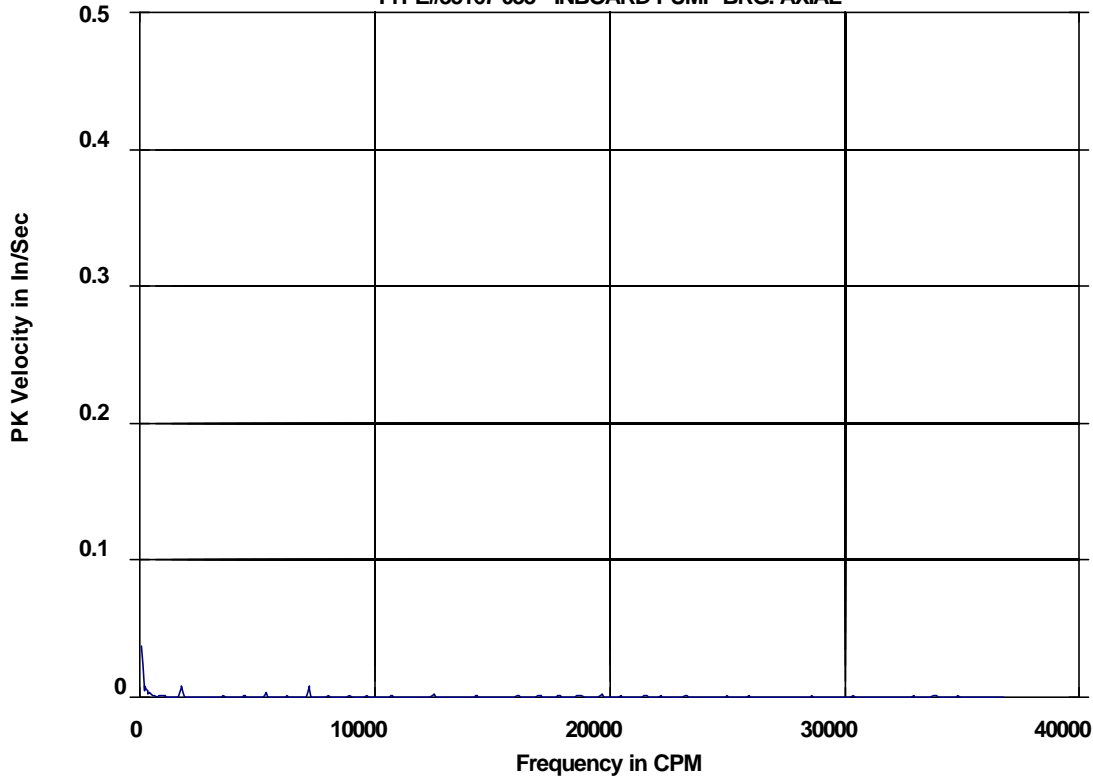
TOTAL MAG .0148
 (ELECTRICAL= 0.00E+00/ 0%

SUBSYNCHRONOUS .0095 / 41%

SYNCHRONOUS .0103 / 49%
 FLOOR= .0062

NONSYNCHRONOUS .0049 / 11%
 SPEC CREST= 3.51)

4 - Harris Co MUD #69 well#1
 TYPE#35167-033 INBOARD PUMP BRG. AXIAL



Route Spectrum
 22-AUG-05 11:04:34
 OVRALL= .0414 V-DG
 PK = .0415
 LOAD = 100.0
 RPM = 1800.
 RPS = 30.00

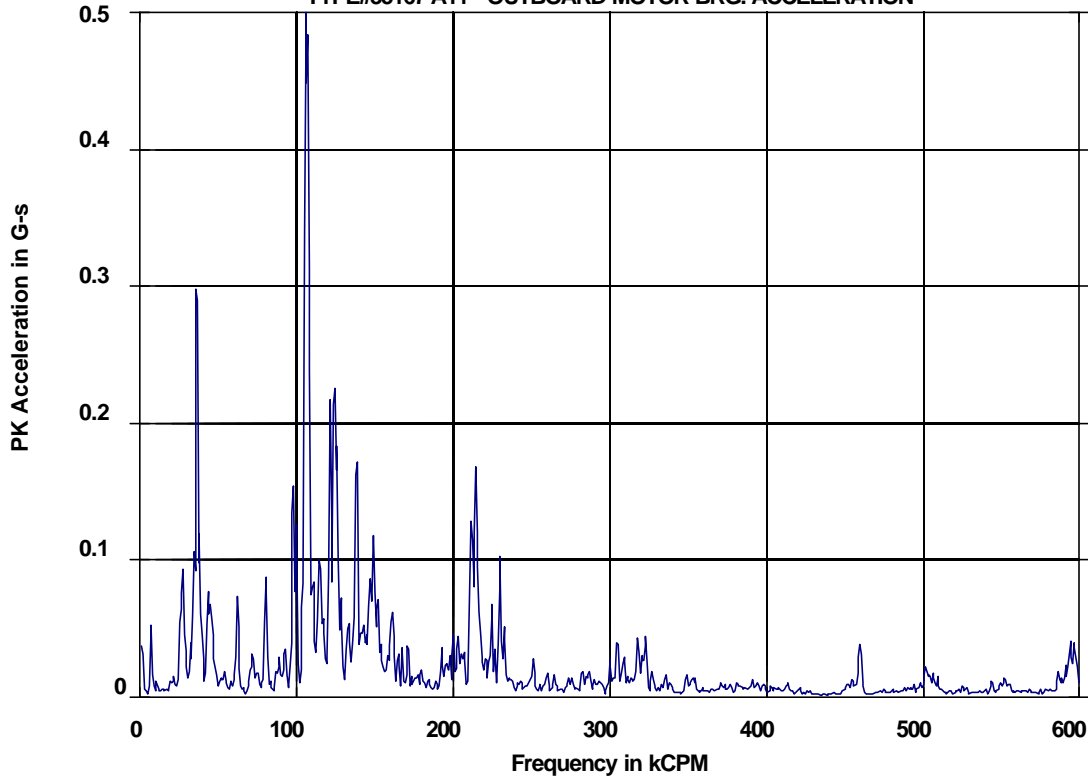
LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-033 --> INBOARD PUMP BRG. AXIAL
 Date/Time: 22-AUG-05 11:04:34 RPM= 1800. Units=In/Sec PK

PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE
1	243.5	.0096	.135	13	7197.8	.0084	3.999
2	436.0	.0033	.242	14	8933.7	.0013	4.963
3	493.2	.0033	.274	15	9667.6	.0011	5.371
4	584.0	.0018	.324	16	10724.5	.0011	5.958
5	805.3	.0010	.447	17	12511.3	.0031	6.951
6	887.4	.0011	.493	18	16084.5	.0019	8.936
7	984.6	.0012	.547	19	16982.8	.0016	9.435
8	1038.5	.0010	.577	20	18780.2	.0016	10.433
9	1786.1	.0103	.992	21	19661.4	.0019	10.923
10	3574.5	.0014	1.986	22	21455.2	.0011	11.920
11	4461.1	.0009	2.478	23	23236.4	.0024	12.909
12	5361.2	.0034	2.978	24	34855.5	.0010	19.364

TOTAL MAG .0186
 (ELECTRICAL= 0.00E+00/ 0%
 SUBSYNCHRONOUS .0110 / 35%
 SYNCHRONOUS .0136 / 53%
 FLOOR= .0064
 NONSYNCHRONOUS .0063 / 12%
 SPEC CREST= 3.69)

4 - Harris Co MUD #69 well#1
 TYPE#35167-A11 OUTBOARD MOTOR BRG. ACCELERATION



Route Spectrum
 22-AUG-05 11:44:52
 OVRALL= 1.20 A-DG
 PK = 1.21
 LOAD = 100.0
 RPM = 1800.
 RPS = 30.00

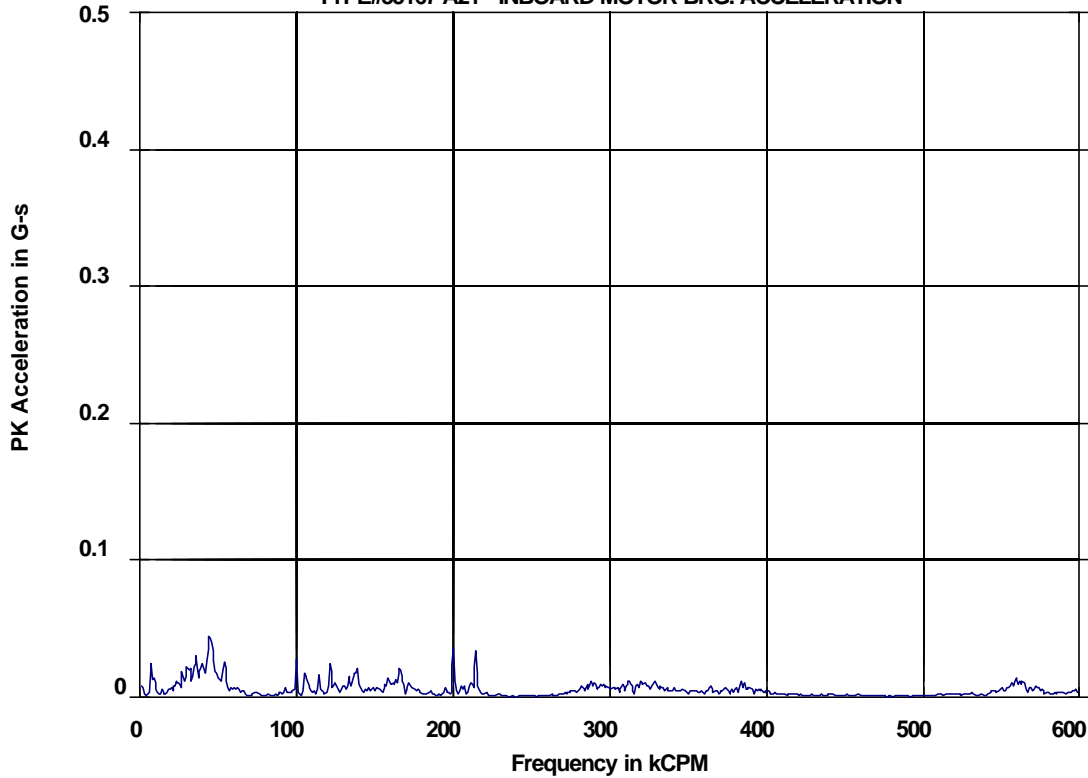
LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-A11 --> OUTBOARD MOTOR BRG. ACCELERATION
 Date/Time: 22-AUG-05 11:44:52 RPM= 1800. Units=G-s PK

PEAK NO.	FREQUENCY (kCPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (kCPM)	PEAK VALUE	ORDER VALUE
1	27.486	.1018	15.270	13	114.398	.1172	63.555
2	34.797	.1178	19.332	14	121.593	.2190	67.552
3	36.357	.3476	20.198	15	124.153	.2589	68.974
4	37.992	.1305	21.107	16	125.687	.2074	69.826
5	43.733	.0820	24.296	17	128.452	.0760	71.362
6	62.424	.0765	34.680	18	138.405	.1974	76.892
7	80.539	.0963	44.744	19	147.263	.0931	81.813
8	97.947	.1712	54.415	20	149.381	.1205	82.990
9	100.043	.1396	55.579	21	151.926	.0807	84.403
10	105.991	.6086	58.884	22	211.808	.1434	117.671
11	106.918	.5492	59.399	23	214.305	.1753	119.058
12	110.648	.0969	61.471	24	230.031	.1095	127.795

TOTAL MAG SUBSYNCHRONOUS SYNCHRONOUS NONSYNCHRONOUS
 1.1062 0.0 / 0% .2856 / 7% 1.0687 / 93%
 (ELECTRICAL= 0.00E+00/ 0% FLOOR= .4832 SPEC CREST= 1.98)

4 - Harris Co MUD #69 well#1
 TYPE#35167-A21 INBOARD MOTOR BRG. ACCELERATION



Route Spectrum
 22-AUG-05 11:45:00
 OVRALL= .1851 A-DG
 PK = .1858
 LOAD = 100.0
 RPM = 1800.
 RPS = 30.00

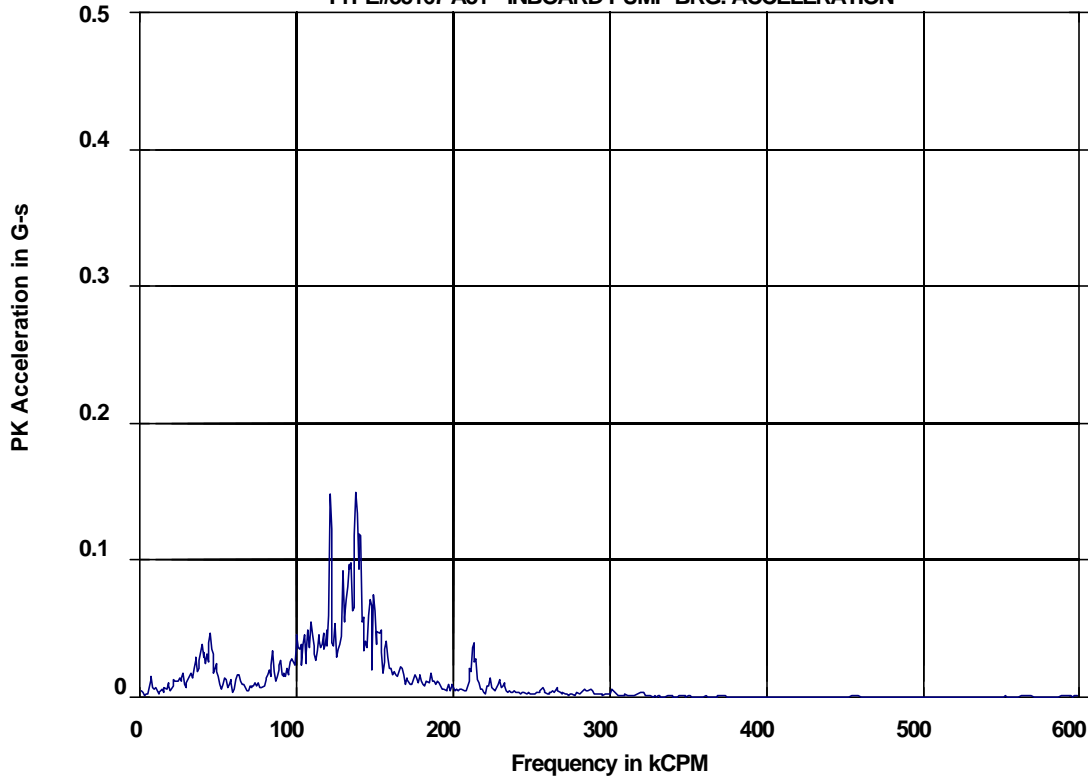
LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-A21 --> INBOARD MOTOR BRG. ACCELERATION
 Date/Time: 22-AUG-05 11:45:00 RPM= 1800. Units=G-s PK

PEAK NO.	FREQUENCY (kCPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (kCPM)	PEAK VALUE	ORDER VALUE
1	7.248	.0277	4.027	13	114.409	.0200	63.561
2	8.654	.0156	4.808	14	121.715	.0255	67.619
3	27.396	.0218	15.220	15	133.717	.0155	74.287
4	30.367	.0262	16.870	16	137.612	.0211	76.451
5	31.906	.0237	17.726	17	138.465	.0229	76.925
6	35.756	.0337	19.864	18	158.554	.0153	88.085
7	40.141	.0289	22.300	19	166.042	.0250	92.246
8	44.588	.0524	24.771	20	200.105	.0375	111.169
9	54.263	.0275	30.146	21	214.341	.0346	119.079
10	100.055	.0310	55.586	22	312.291	.0144	173.495
11	105.375	.0208	58.542	23	559.204	.0152	310.669
12	106.896	.0165	59.386	24	563.593	.0140	313.107

TOTAL MAG .1274
 (ELECTRICAL= 0.00E+00/ 0%
 SUBSYNCHRONOUS 0.0 / 0%
 FLOOR= .1102
 SYNCHRONOUS 0.0 / 0%
 NONSYNCHRONOUS .1274 /100%
 SPEC CREST= 3.55)

4 - Harris Co MUD #69 well#1
 TYPE#35167-A31 INBOARD PUMP BRG. ACCELERATION



Route Spectrum
 22-AUG-05 11:45:08
 OVRALL= .4896 A-DG
 PK = .4892
 LOAD = 100.0
 RPM = 1800.
 RPS = 30.00

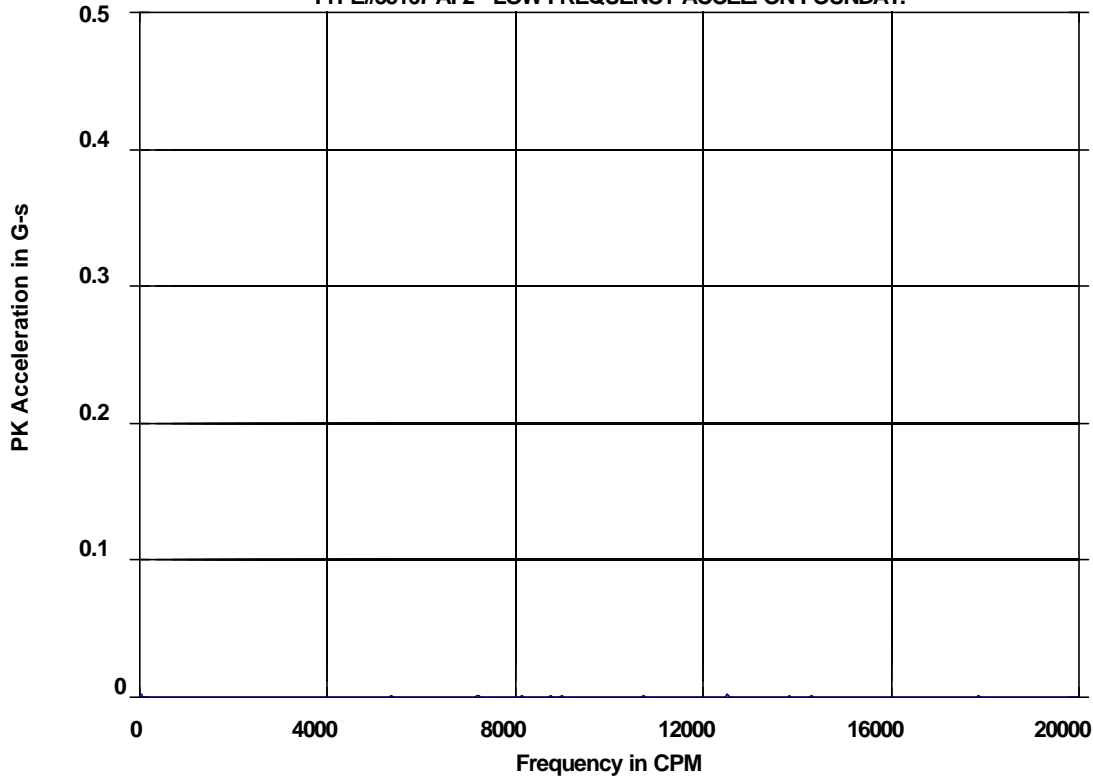
LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-A31 --> INBOARD PUMP BRG. ACCELERATION
 Date/Time: 22-AUG-05 11:45:08 RPM= 1800. Units=G-s PK

PEAK NO.	FREQUENCY (kCPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (kCPM)	PEAK VALUE	ORDER VALUE
1	44.701	.0517	24.834	13	133.846	.1111	74.359
2	100.221	.0514	55.678	14	134.662	.1119	74.812
3	104.710	.0499	58.172	15	138.315	.1682	76.842
4	107.452	.0514	59.695	16	140.615	.1404	78.120
5	109.766	.0596	60.981	17	142.156	.0670	78.975
6	114.315	.0515	63.508	18	144.315	.0457	80.175
7	116.739	.0508	64.855	19	147.336	.0814	81.853
8	119.012	.0523	66.118	20	149.538	.0817	83.077
9	121.766	.1611	67.648	21	151.875	.0569	84.375
10	124.318	.0556	69.066	22	153.407	.0566	85.226
11	128.619	.0518	71.455	23	157.198	.0459	87.332
12	129.842	.0928	72.135	24	212.689	.0448	118.160

TOTAL MAG SUBSYNCHRONOUS SYNCHRONOUS NONSYNCHRONOUS
 .4070 0.0 / 0% .0896 / 5% .3970 / 95%
 (ELECTRICAL= 0.00E+00/ 0% FLOOR= .3675 SPEC CREST= 2.91)

4 - Harris Co MUD #69 well#1
 TYPE#35167-AF2 LOW FREQUENCY ACCEL. ON FOUNDAT.



Route Spectrum
 22-AUG-05 11:45:18
 OVRALL= .0053 A-DG
 PK = .0053
 LOAD = 100.0
 RPM = 1780.
 RPS = 29.67

LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-AF2 --> LOW FREQUENCY ACCEL. ON FOUNDAT.
 Date/Time: 22-AUG-05 11:45:18 RPM= 1780. Units=G-s PK

PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE
1	109.8	4.75E-04	.062	13	8985.6	.0008	5.048
2	1786.7	.0007	1.004	14	10719.2	.0007	6.022
3	3576.3	3.73E-04	2.009	15	10763.3	.0005	6.047
4	4445.4	3.22E-04	2.497	16	11559.6	3.08E-04	6.494
5	4915.7	3.47E-04	2.762	17	11617.6	3.38E-04	6.527
6	5038.9	3.66E-04	2.831	18	11698.9	2.81E-04	6.573
7	5137.6	3.94E-04	2.886	19	12508.6	.0022	7.028
8	5360.7	.0009	3.012	20	13815.9	.0007	7.762
9	7197.6	.0024	4.044	21	14294.4	.0006	8.031
10	8128.9	.0011	4.567	22	16184.2	3.37E-04	9.093
11	8756.9	.0008	4.920	23	17868.5	.0012	10.039
12	8933.9	.0006	5.019	24	18760.4	3.80E-04	10.540

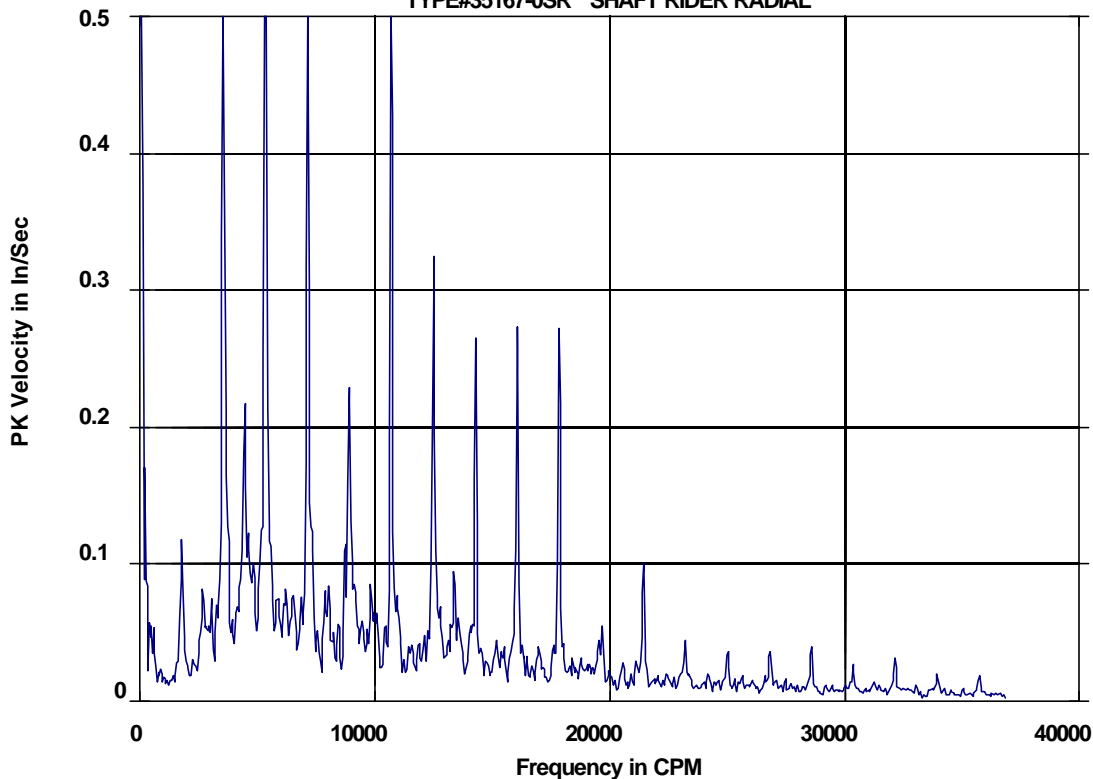
TOTAL MAG .0044
 (ELECTRICAL= .0024 / 30%

SUBSYNCHRONOUS 4.75E-04 / 1%

SYNCHRONOUS .0013 / 9%
 FLOOR= .0019

NONSYNCHRONOUS .0034 / 59%
 SPEC CREST= 2.17)

4 - Harris Co MUD #69 well#1
 TYPE#35167-0SR SHAFT RIDER RADIAL



LIST OF SPECTRAL PEAKS

Machine: (4) Harris Co MUD #69 well#1
 Meas. Point: TYPE#35167-0SR --> SHAFT RIDER RADIAL
 Date/Time: 22-AUG-05 11:46:00 RPM= 1800. Units=In/Sec PK

PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE	PEAK NO.	FREQUENCY (CPM)	PEAK VALUE	ORDER VALUE
1	117.1	.5137	.065	13	8040.4	.0906	4.467
2	237.3	.1687	.132	14	8740.8	.1323	4.856
3	303.4	.1002	.169	15	8921.9	.2630	4.957
4	1786.5	.1250	.993	16	9151.8	.0973	5.084
5	2694.0	.0926	1.497	17	9840.5	.0947	5.467
6	3571.8	1.1662	1.984	18	10717.0	.5506	5.954
7	4456.9	.2365	2.476	19	12489.3	.3318	6.939
8	4631.4	.1372	2.573	20	13393.4	.1070	7.441
9	4861.9	.1131	2.701	21	14289.9	.2686	7.939
10	5359.7	1.5928	2.978	22	16074.2	.3135	8.930
11	6244.0	.0911	3.469	23	17862.6	.2922	9.924
12	7143.1	.5430	3.968	24	21429.3	.1082	11.905

TOTAL MAG SUBSYNCHRONOUS SYNCHRONOUS NONSYNCHRONOUS
 2.3280 .5499 / 6% 1.4015 / 36% 1.7757 / 58%
 (ELECTRICAL= 0.00E+00/ 0% FLOOR= .7233 SPEC CREST= 2.18)