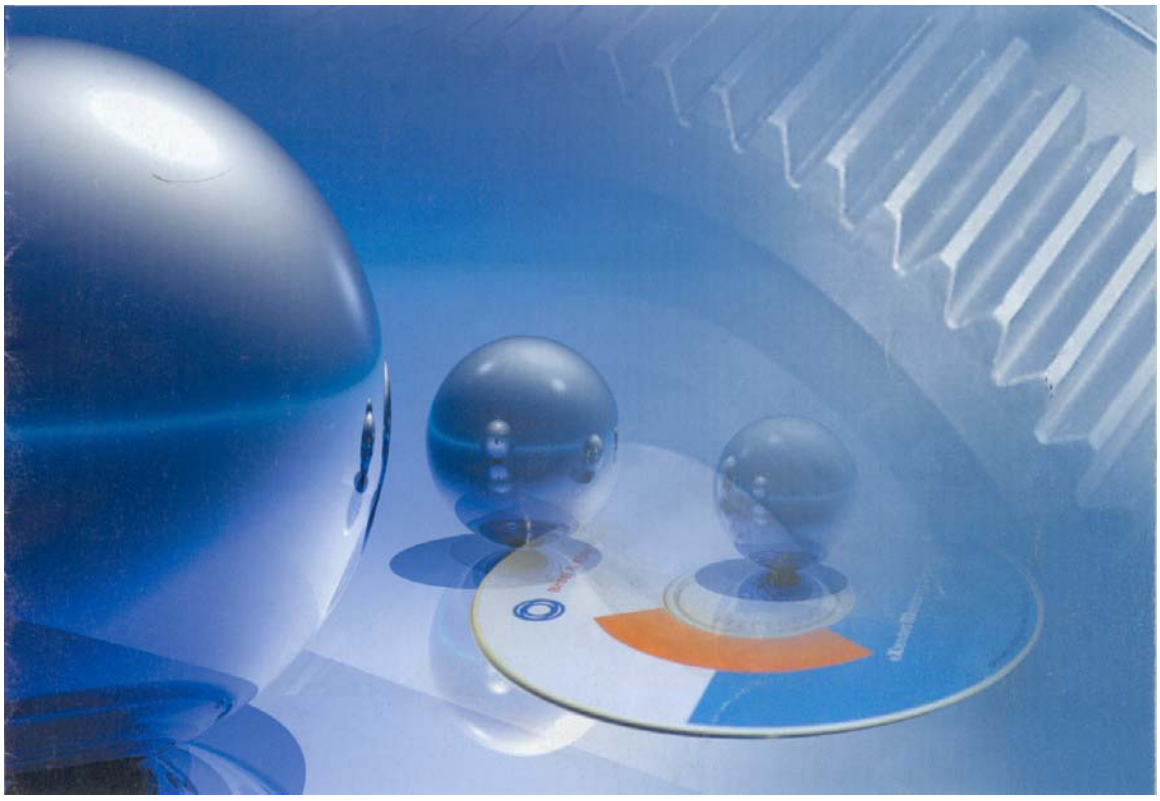
Sample Report March 2006



Burdick Bros. Inc.
Quality Service Since 1985

VIBRATION ANALYSIS • LASER ALIGNMENT • DYNAMIC BALANCING

e-mail: bbi@abe.midco.net

Attn:
Your Company
12345 678th Ave
Anytown, SD 57999 (605) 123-4567

March 30, 2006 ***INVOICE*** ***No. 2301***

PO #: -----

Vibration Data Collection:

Data Analysis/Reports
Mileage

$ 382.50

4% Sales Tax ***$ 15.30***

Total ***$ 397.80***

TERMS: Net 10th

THANK YOU!!

Next Scheduled Appointment: June 2006
Please let us know if this will not be suitable

Table of Contents

Equipment Summaries

Equipment Not on This Summary is Appears to Be Operating Within Normal Working Tolerance

Or Was Not Operating at Time of Data Collection

3/8" Coil Line

6684 Blast System

Blast Cabinet Motor: Elevated Vibration Levels at 1 x's rpm, Indicating Unbalance

Shot Blaster Motor #1: Everything Appears to Be in Normal Working Order

Shot Blaster Motor #3: High Vibration Levels with Harmonics of Running Speed, Indicating Unbalance and/or Looseness (See Graph)

**Dynamically Balance or Check and/or Replace Blowers on Blast Cabinet and Shot Blast #3

Aeration Blowers

AEB1 AERATION BLOWER #1

**Vibration Levels are Within Normal Working Tolerance, But are Higher Than Aeration Blowers #2 and #3

PDB POSITIVE DISPLACEMENT BLOWER

**High Motor Vibration Levels at 1 x's Motor rpm, Usually Indicating Unbalance (See Graphs)

**Check for Eccentric Pulley

**Recheck Motor Vibration Levels with Belts Removed

Summary

**Burdick Bros., Inc. Recommends reevaluating vibration levels on all equipment in approximately three months, to develop trends that accurately predict equipment problems.

**All Bearing Numbers are needed to make a complete diagnosis

**In order to develop accurate trends, we need to be informed of ALL repairs including: bearing, motor, shaft, etc. replacements that are done to the equipment. Bearing insert numbers are needed – housing numbers don't work with our software. Feel free to drop an e-mail to Deb at bbi@abe.midco.net or start a file of notes for Jim to pickup when he comes for the next visit. Include the machine name and/or number and where the bearing, shaft, etc. is located (Motor In, Motor Out, etc.), if applicable, so I can put replacement information with the proper machine and place.

Note

**Bearing Condition Units (BCU) is an evaluation of the trend of shock impulses. No standards for evaluation limits are currently available, for this reason, trending is the best evaluation criterion.

**Criteria for overall condition (Vibration Levels) rating (peak overall velocity, in/sec rms).

3/8" Coil Line

5341 Shear – Cincinnati

**Everything Appears to Be in Normal Working Order

6684 Blast System

****Blast Cabinet Motor:** Elevated Vibration Levels at 1 x's rpm, Indicating Unbalance

****Shot Blaster Motor #1:** Everything Appears to Be in Normal Working Order

****Shot Blaster Motor #3:** High Vibration Levels with Harmonics of Running Speed, Indicating Unbalance and/or Looseness (See Graph)

**Dynamically Balance or Check and/or Replace Blowers on Blast Cabinet and Shot Blast #3

**Periodic Monitoring

5341 Shear - Cincinnati

Point Name	MOTOR Vibration	BCU
5341MIV	0.052	0.073
5341MIH	0.027	0.055
5341MIA	0.052	0.277
5341MOV	0.046	0.131
5341MOH	0.032	0.051

5341

Assessment:

**Vibration Levels are Within Normal Working Tolerance

Action Recommended:

**Periodic Monitoring

6684 Blast System

BLAST CABINET MOTOR

Point Name	Vibration	BCU
6684BFMIV	0.162	0.069
6684BFMIH	0.105	0.098
6684BFMIA	0.299	0.135
6684BFMOV	0.253	0.069
6684BFMOH	0.219	0.098

SHOT BLASTER MOTOR #1

Point Name	Vibration	BCU
6684SB1MIV	0.045	0.084
6684SB1MIH	0.048	0.168
6684SB1MIA	0.193	0.047
6684SB1MOV	0.093	0.175
6684SB1MOH	0.062	0.084

SHOT BLASTER MOTOR #3

Point Name	Vibration	BCU
6684SB3MIV	0.269	0.190
6684SB3MIH	0.368	0.142
6684SB3MIA	0.800	0.222
6684SB3MOV	0.646	0.278
6684SB3MOH	0.270	0.789

6684

Assessment:

**Blast Cabinet Motor: Elevated Vibration Levels at 1 x's rpm, Indicate Unbalance

**Shot Blaster Motor #1: Vibration Levels are Within Normal Working Tolerance

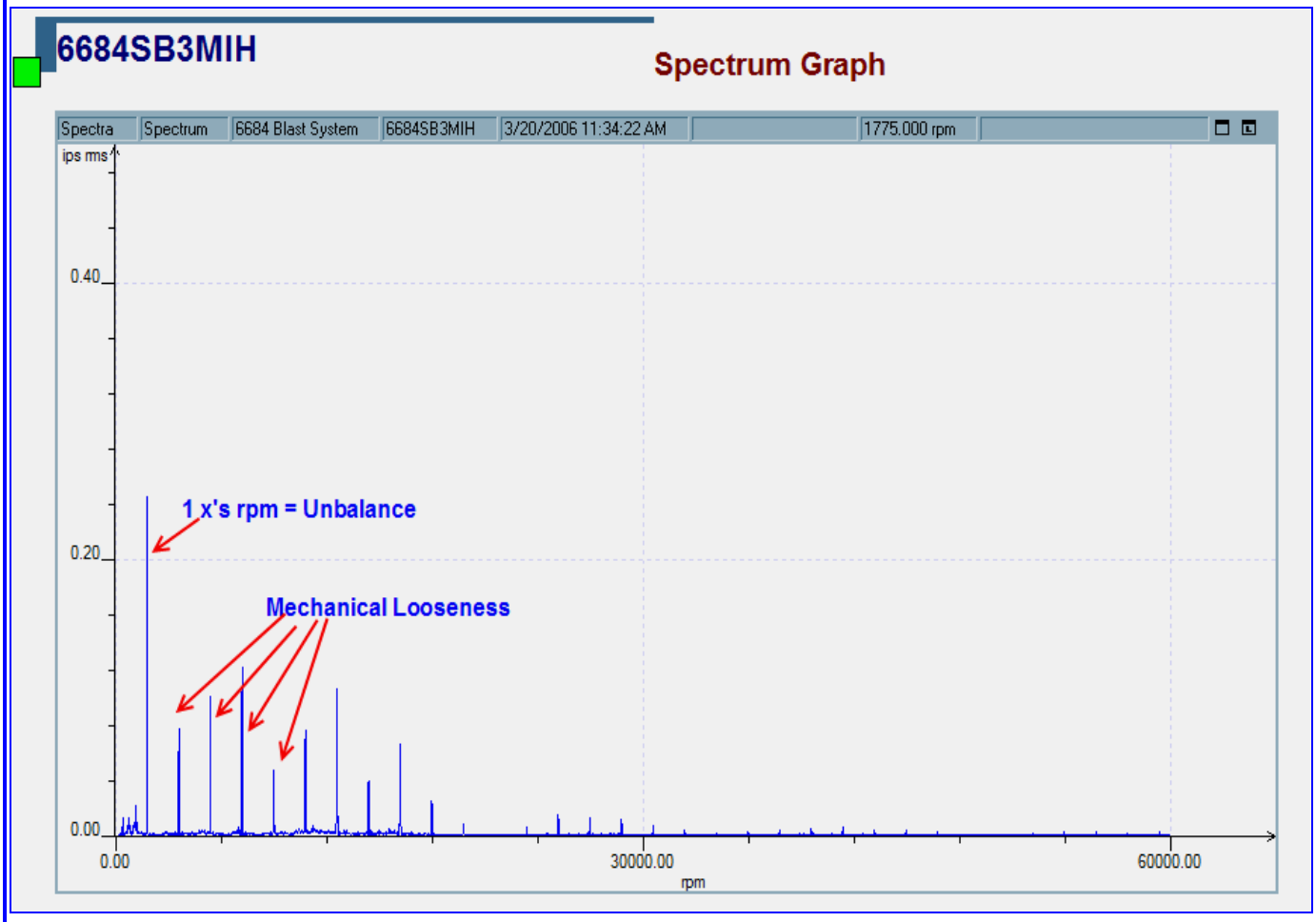
**Shot Blaster Motor #3: High Vibration Levels with Harmonics of Running Speed, Indicating Unbalance and/or Looseness (See 6684SB3MIH Spectrum Graph)

Action Recommended:

**Dynamically Balance or Check and/or Replace Blowers on Blast Cabinet and Shot Blast #3

**Periodic Monitoring

6684 Blast System



Aeration Blower

AEB1 AERATION BLOWER #1

**Vibration Levels are Within Normal Working Tolerance, But are Higher Than Aeration Blowers #2 and #3

AEB2 AERATION BLOWER #2

**Everything Appears to Be in Normal Working Order

PDB POSITIVE DISPLACEMENT BLOWER

**High Motor Vibration Levels at 1 x's Motor rpm, Usually Indicating Unbalance (See Graphs)

**Check for Eccentric Pulley

**Recheck Motor Vibration Levels with Belts Removed

AEB1 AERATION BLOWER #1

MOTOR			BLOWER		
Point Name	Vibration	BCU	Point Name	Vibration	BCU
AEB1MIV	0.033	0.352	AEB1BIV	0.045	0.254
AEB1MIH	0.134	0.268	AEB1BIH	0.214	0.243
AEB1MIA	0.041	0.145	AEB1BOV	0.075	0.377
AEB1MOV	0.095	0.152	AEB1BOH	0.114	0.297
AEB1MOH	0.197	0.131			

Assessment:

**Vibration Levels are in Within Normal Working Tolerance, But are Higher than Aeration Blower #2 and #3

Action Recommended:

**Periodic Monitoring

AEB2 AERATION BLOWER #2

	MOTOR			BLOWER	
Point Name	Vibration	BCU	Point Name	Vibration	BCU
AEB2MIV	0.022	0.163	AEB2BIV	0.036	0.268
AEB2MIH	0.020	0.210	AEB2BIH	0.038	0.228
AEB2MIA	0.026	0.247	AEB2BOV	0.049	0.218
AEB2MOV	0.062	0.359	AEB2BOH	0.030	0.221
AEB2MOH	0.019	0.247			

Assessment:

**Vibration Levels are Within Normal Working Tolerance

Action Recommended:

**Periodic Monitoring

PDB POSITIVE DISPLACEMENT BLOWER

MOTOR

Point Name	Vibration	BCU
PDBMIV	0.349	0.225
PDBMIH	0.222	0.087
PDBMIA	0.065	0.247
PDBMOV	0.508	0.276
PDBMOH	0.126	0.359
PDBMOA	0.231	0.149

SHAFT #1

Point Name	Vibration	BCU
PDBBS1IV	0.174	0.858
PDBBS1IH	0.206	0.785
PDBBS1OV	0.160	0.742
PDBBS1OH	0.175	0.611

SHAFT #2

Point Name	Vibration	BCU
PDBBS2IV	0.199	0.447
PDBBS2IH	0.182	0.843
PDBBS2OV	0.190	0.713
PDBBS2OH	0.168	0.567

Assessment:

**High Motor Vibration Levels at 1 x's Motor rpm, Indicating Unbalance (See PDBMOV [1] Spectrum Graph and PDBMIV [1] Vibration Trend Graph)

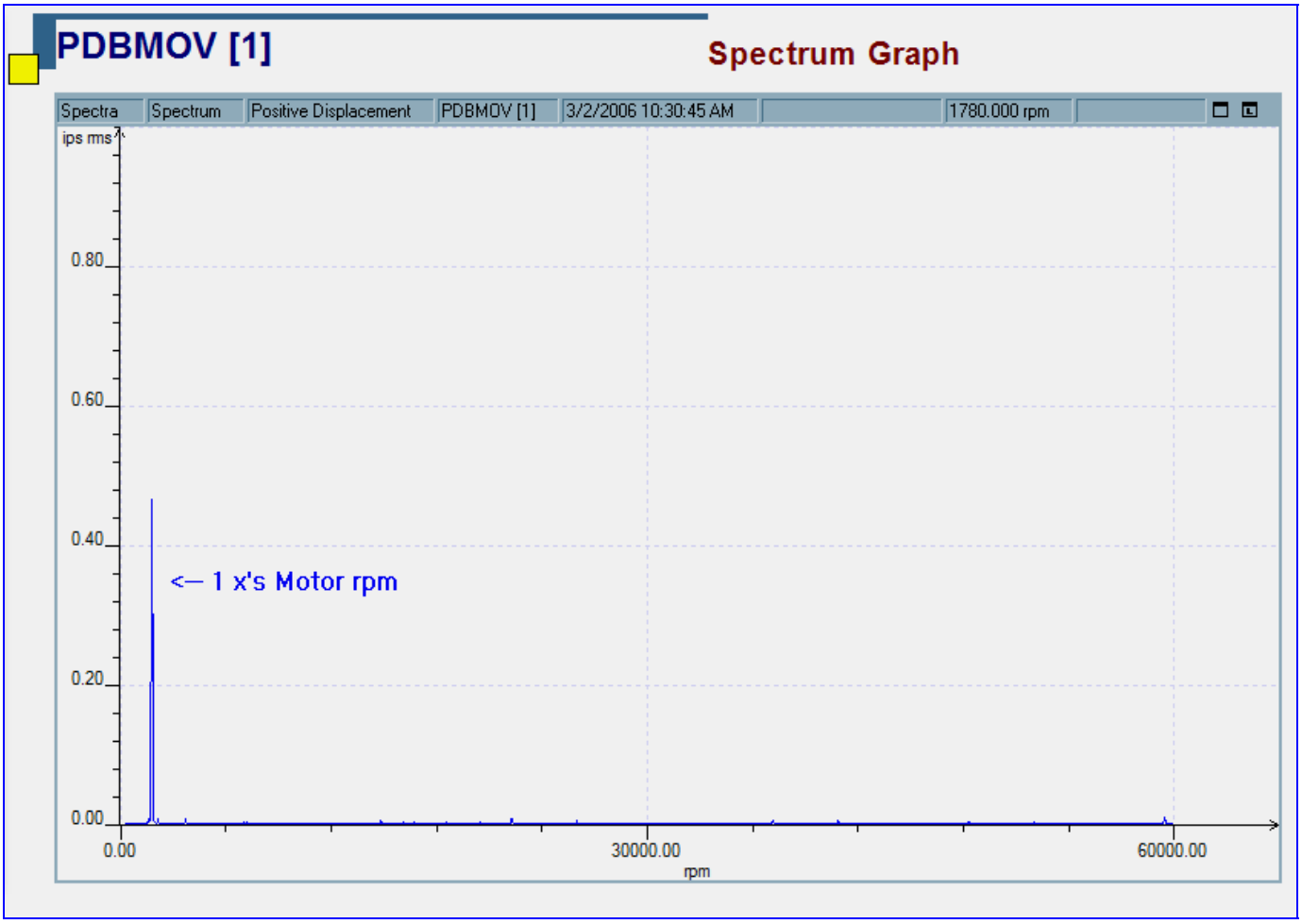
Action Recommended:

**Check for Eccentric Pulley

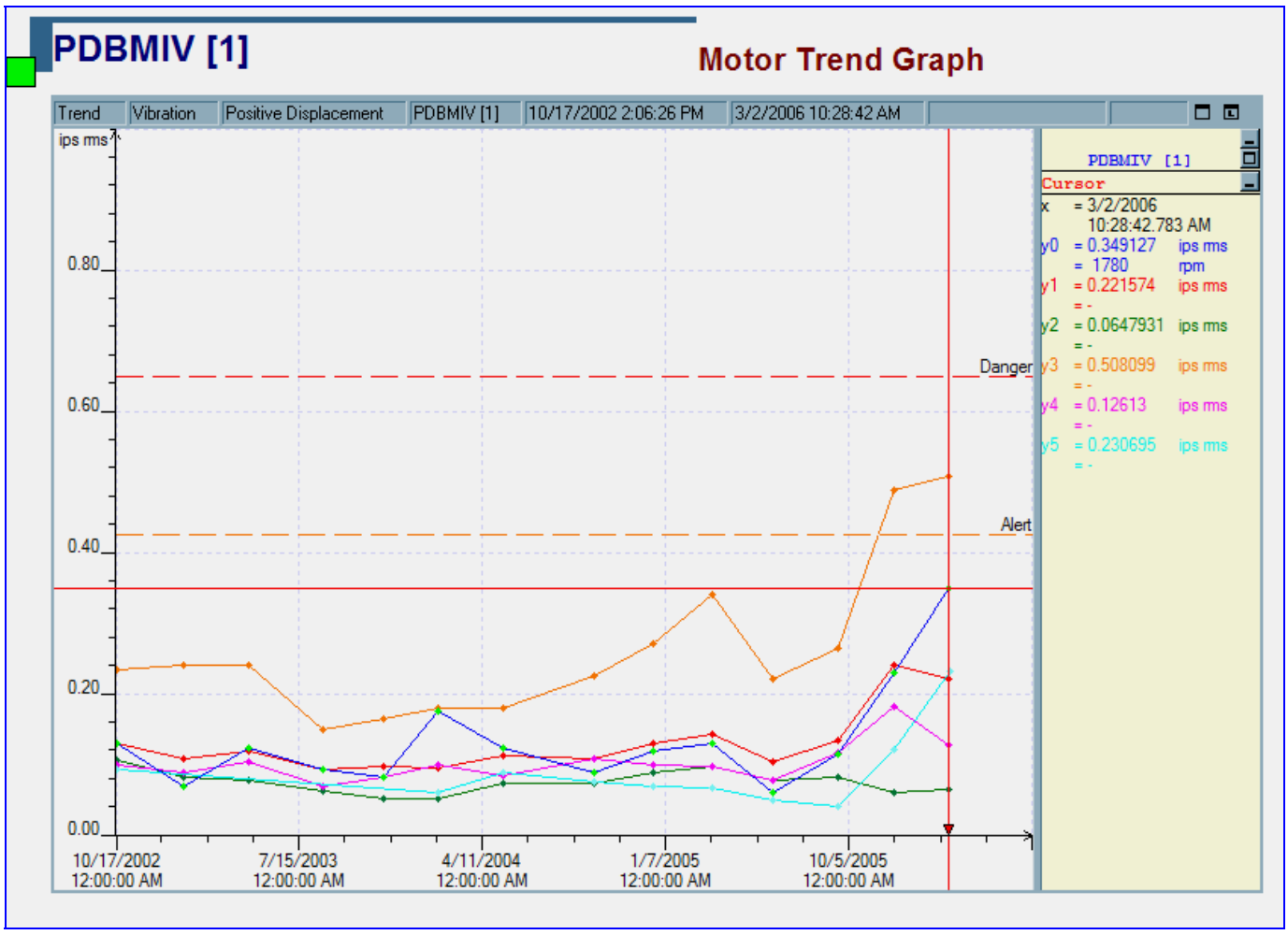
**Recheck Motor Vibration Levels With Belts Removed

**Periodic Monitoring

PDB POSITIVE DISPLACEMENT BLOWER



PDB POSITIVE DISPLACEMENT BLOWER



y0 – PDBMIV
y1 – PDBMIH
y2 – PDBMIA
y3 – PDBMOV
y4 – PDBMOH
y5 – PDBMOA