

To: T. H. Huffman

From: R. W. Seymour
Date: June 27, 1990

Subject: ABERDEEN MONTHLY PROGRESS REPORT
MAY, 1990

Interoffice
Communication

VISTA

Safety

There was one first aid case reported in May. At month's end, Aberdeen plant employees had worked 3988 days (5,298,464 manhours) since the last lost time injury.

<u>FY 1990 Key Statistical Information</u>	<u>May</u>	<u>Y.T.D.</u>
PVC Production, MM Lbs.	39.2	299.0
Reactor Stream Factor, %	92.9	88.0
Resin Quality, % Prime	98.4	97.1
VCM Efficiency, Lbs./Lb.	1.0097	1.0019
Flexible Compound Production, MM Lbs.	6.1	48.6
Flexible Compound Quality, % Prime	99.0	98.2
Rigid Compound Production, MM Lbs.	5.4	39.5
Rigid Compound Quality, % Prime	99.8	99.6
Plasticizer Production, MM Lbs.	1.5	12.2
Plasticizer Quality, % Prime	81.3	88.7
Energy Use, (EUI, %)	< 4.0>	< 7.7>
Fixed Cost Variance, \$M	< 82.4>	229.2
Variable Cost Efficiency Variance, \$M	18.0	553.6

Capacity Utilization Factors

Resin	103.7	100.9
Flexible Compound	78.8	77.9
Rigid Compound	90.9	82.7
Plasticizer	63.9	71.5

Operations

The latest clean wall test was successful keeping the reactor clean through a ninety batch run of 5305. Resin contamination numbers were good throughout the run. A successful test batch of 5325 was made for Premiere Polymers.

Flexible compound inventory dropped about 600M pounds in May with packaged shipments exceeding April by 500M pounds. Line V operated only 3.5 days. PLENEX polymer trials consumed fifty-nine hours on Line I producing new jacket formulations for testing.

Rigid compound demand remained strong through May.

RECEIVED
CCR 000006402
JUL 02 90

WILLIAM L. McCLAIN

Becky
let's discuss
WLM

T. H. Huffman

6/27/90

Aberdeen Monthly Progress Report - May, 1990

Page 2

Costs

The overall efficiency variance for the month was favorable by \$18.0M. The resin and flexible compound groups continue successful off-grade reduction programs with resin off-grade 56% below budget and flexible compound mill scrap 36% below budget.

Fixed costs were essentially at budget except for the \$83M payroll correction for April.

OMP

1. Roy Richards, the Southwire Company's CEO, travelled to Aberdeen on May 24 with other Southwire management personnel to present Vista a plaque for achieving the "Certified Quality Vendor" rating. This award was for performance in Southwire's Vendor Excellence Program for the six-month period November 1, 1989 to April 30, 1990.
2. Vista signed a new one-year Vendor Excellence Quality Agreement with Southwire beginning May 1, 1990.
3. This month 94.9% of the plant's natural teams met and the average number of meetings per natural team was 1.15.
4. R. W. Seymour made an MBWA visit with Eric Strouder to Intex in Corinth, Mississippi.

RW Seymour

R. W. Seymour
Plant Manager

rah

CCR 000006403

DISTRIBUTIONCOVER LETTERENTIRE REPORTHouston

J. D. Burns

X

R. T. Ferrell

X

T. H. Huffman

X

C. J. Matson

X

D. F. Harman

X

H. R. Flammer

X

R. R. Smith

X

B. J. Bean

X

R. H. Gerlach

X

R. D. Gamblin

X

✓ W. L. McClain

X

J. P. Stokes

X

Austin

R. L. Poe

X

H. J. Hall

X

Oklahoma City

H. D. Garrison

X

LCVCM Plant

R. A. Conrad

X

LCCP Plant

J. Friend

X

LCLAB Plant

J. W. Ware

X

Baltimore

L. R. Bauer

X

Hammond

J. Pavao

X

Blane

C. R. Miller

X

Premiere

P. L. Foote

X

AberdeenRWS/DCS (File Copy), TJA, JBA, JEB, JME, SCH,
MRK, JEL, DAM, RBN, JEN, JDO, REP, BLT

CCR 000006404

SAFETY - B. L. Trego

	<u>May</u>	<u>Fiscal</u> <u>Y.T.D. 1990</u>	<u>Fiscal</u> <u>Y.T.D. 1989</u>
First Aid	1	13	12
OSHA Recordable	<u>0</u>	<u>4</u>	<u>6</u>
Total Injuries	1	17	18
Number of Restricted Workday Cases	0	3	2
Number of Lost Workday Cases	0	0	0

Injuries by Department

Vinyl Operations	0	0	2
Compound Operations	0	5	4
Maintenance	1	10	10
Laboratory	0	1	1
Receiving/Warehouse	0	0	0
Office	<u>0</u>	<u>1</u>	<u>1</u>
Totals	1	17	18

Injuries by Type

Cuts and Abrasions	1	6	3
Eye Injuries	0	1	0
Burns	0	3	6
Bruises	0	2	4
Strains/Sprains	0	1	3
Stings	0	2	0
Other	<u>0</u>	<u>2</u>	<u>2</u>
Totals	1	17	18

Non-Occupational Injuries

Lost Workday Cases	3	6	2
Days Lost	35	119	42

Safety Record

Last lost time injury - 7/5/79
Days since - 3988
Employee hours since - 5,298,464

On May 31, 1990, the employees of the Aberdeen plant completed 3988 days with no lost time injury.

The main topic of plant safety meetings during the month was "Energy Lockout Procedures".

The Drill Planning Team held four chlorine emergency response drills in May; one for each shift. Following each drill, response training was held for several chlorine emergency situations.

SAFETY - Continued

Routine dosimetry results for the month were:

<u>Chemical</u>	<u>< PEL</u>		<u>> PEL</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
VCM	80	100.0	0	0.0
Lead	16	100.0	0	0.0
Total Particulates	6	100.0	0	0.0

Monthly Injury Summary

<u>Injury Class</u>	<u>Department</u>	<u>Description</u>
FA	Maintenance	Cut, right forearm.

CCR 000006406

QUALITY MANAGEMENT PROCESS - T. J. Arbeiter

Vista signed a new one-year Vendor Excellence Quality Agreement with Southwire Company, our largest customer at the Aberdeen plant. The agreement covers all 5415 resin sold to Southwire. The agreement clarifies in detail the mutually agreed upon requirements relating to product quality, service and delivery, wire and cable commitment, technical support and exemplary service. This last category takes into account Vista's attitude and commitment towards a long-term partnership with Southwire and our willingness to support Southwire's quality improvement efforts.

Our previous quality agreement with Southwire was six months in duration (November 1, 1989 - April 30, 1990). During these six months of our first agreement, Vista achieved a rating of 99.7 out of a possible 108 points. This score earned Vista a "Certified Quality Vendor" rating. A score of 100 points or more earns the highest rating of "Excellent Vendor". As of this time, no one has achieved this highest rating.

Southwire's top management, including Roy Richards, Southwire's CEO, travelled to Aberdeen May 25 to present Vista with a plaque in honor of our achieving the "Certified Quality Vendor" rating. Approximately 110 Vista employees attended presentations in the plant auditorium and the Vinyl Department control room.

R. W. Seymour made one customer MBWA visit during May with Eric Strouder to Intex in Corinth, Mississippi.

D. G. Mouldings of Marion, Virginia, visited the plant for a general information exchange and tour.

94.9% of the plant's natural teams met during May. The average meetings per natural team were 1.15.

CCR 000006407

COST VARIANCES - D. C. Skokna

Variable Costs

<u>Product</u>	<u>May, 1990 Variance, \$M</u>		
	<u>Efficiency</u>	<u>Price</u>	<u>Total</u>
PVC	\$10.0	(\$163.2)	(\$153.2)
Flexible Compound	73.3	39.1	112.4
Rigid Compound	(36.1)	78.9	42.8
Plasticizer	(29.2)	39.6	10.4
	\$ 18.0	(\$ 5.6)	\$ 12.4

PVC - Operations were essentially at budget. Off-grade production was 56% below budget.

Flexible Compound - Raw material usage was \$22.4M favorable; product mix variance was \$45.0M favorable; and the variance due to off-grade was \$12.2M favorable. Scrap rates were 36% below budget.

Rigid Compound - The unfavorable variance was due to an unfavorable product mix variance of \$96.8M offset by a favorable raw material variance of \$60.3M. Most of the raw material variance was due to a favorable TiO₂ variance that was caused by difficulties in accurately gauging the TiO₂ hopper.

Plasticizer - Raw material consumption was over budget.

Price Variances

	<u>\$M</u>
- Resin to Rigid Compound	69.5
- Resin to Flexible Compound	23.6
- Natural Gas	20.0
- Alfol 610 ⁺ Alcohols	30.9
- VCM	(188.1)
- Other Price Variances	38.5
Total	(\$ 5.6)

Fixed Cost Variances

	<u>\$M</u>
- Payroll and Benefits	(\$ 97.5)
- MM&C	34.2
- Miscellaneous	(28.4)
- TI&D	(5.1)
- Clearances	14.4
Total	(\$ 82.4)

CCR 000006408)

COST VARIANCES - Continued

Payroll and Benefits - The accounting error made in May (\$83M of May payroll rates were not accrued) was corrected.

M. M. & C. - Activity was below budgeted levels.

Miscellaneous:

- Packaging supplies were \$26.8M favorable.
- Moving, home assistance was \$25.0M unfavorable due to John Olson's move.
- Processing supplies were \$10.8M unfavorable.
- Contract costs - operating were \$31.1M unfavorable due to changes related to preparing for a potential work stoppage.

Clearances - The \$14.4M favorable variance was due to the sale of some surplus equipment.

CCR 000006409

VINYL - J. D. Olson, J. M. Vinoski

Safety

The Vinyl Department had no first aid or OSHA recordable injuries during the month of May.

The monthly safety meeting topic was "Lockout and Tagout Procedures".

General

1. The latest BUS-80 test was successful. The temporary injection system on D745 kept the reactor clean through ninety batches of 5305 resin. Resin contamination numbers were good throughout the run.
2. A test batch of 5325 resin was made for Premiere Polymers. Specifications for the resin produced were very close to those targeted. Further results are expected next month.
3. The resin raw materials in the 744 account were valued at \$419.9M.

	<u>May</u>	<u>YTD</u>
- Production, MM Lbs.	39.2	299.0
- Daily Rate, M Lbs./C.D.	1264.5	1230.5
- Capacity Utilization Factor, %	103.7	100.9
- Total Reactor Charges	934.0	7028.0
- Charges/C.D.	30.1	28.9
- Reactor Stream Factor, %	92.9	88.0
- Rotary Dryer Stream Factor (#4-#8), %	88.3	79.4
- Fluid Bed Dryer Stream Factor, %	98.1	91.6
- Resin Quality, % Prime	98.4	97.1

Reactor Downtime

	<u>Hours</u>
- Operational downtime (recovery scheduling conflicts, New Module rinse/charge water conflicts, waiting for Q.C. data before charging, O-ring leaks, no place to dump, rinsing chem wash tanks).	341
- Maintenance downtime (condenser drilling on D744 and D400, reactor cleaning on D700, hydroblasting and drilling on D745, dump valve change on D300, and miscellaneous valve and instrument repairs).	184

VINYL - Continued

<u>Dryer Downtime</u>	<u>% of Total Downtime</u>
- Reactor limited production.	49.2
- Operational downtime (centrifuge plugs, dryer cleaning, and flameouts).	25.8
- Maintenance downtime (exhauster, centrifuge, baghouse and activator maintenance, and screw conveyor repairs).	25.0

Key Maintenance Work - J. B. Autrey, J. B. Hegwood

- Reactors 400 and 744 were shut down during the month for condenser drilling because of cooling control problems.
- Reactor 745 was shut down during the month for condenser drilling and hydroblasting as part of the contamination control program.
- The reactor agitator gearbox on reactor 745 was shut down during the month because of an excessive vibration problem. The fluid coupling was replaced and the gearbox and motor realigned.
- Reactor 700 was shut down during the month for hydroblasting as part of the contamination control program.
- The chem wash pumps in the old reactor unit were shut down during the month for repairs to their bases. The bases were leveled and grouted in place. The pumps were then realigned and put back in service.
- There were two Corken VC unloading compressors rebuilt during the month. The 690 compressor had bad rings and a bad bearing on the crank shaft. The 490 compressor was leaking around the packing.
- There were two major valves changed out in the reactor area during the month.

COMPOUND - J. E. Nickerson, K. G. Akins

Safety

The Compound Department worked without injury in May. The revised lockout/tagout procedures were reviewed during the monthly safety meetings.

General

Flexible compound inventories fell from 7.54MM pounds to 6.97MM pounds during the month. Packaged compound shipments were up 500M pounds from April. Line V only operated 3.5 days during this month for inventory control. Line I was down for fifty-nine hours for PLENEX polymer testing and production. This month several new jacket formulations were produced for extrusion onto wire and submittal to UL for testing.

Demand for rigid compound remained strong in May. Current orders have the unit on an extremely tight production schedule into July.

<u>Compound Production</u>	<u>Operating Days</u>	<u>Production (M Lbs.)</u>		
		<u>Month</u>	<u>Avg./Day</u>	<u>Fiscal Y.T.D.</u>
Line I	30	1884	63	15937
Line III	31	4066	131	27648
Line V	3.5	180	51	5019
Total		6130	245	48604
% Prime		99.0		98.2
Capacity Utilization Factor		.788		.779

Downtime

Hours

Line I

- Product Changes	85
- PLENEX Polymer Testing	59
- Miscellaneous Maintenance	25
- Quality Problems & Control	12
- Dicer Problems & Maintenance	12

Line III

- Product Changes	52
- Miscellaneous Maintenance	17
- Quality Problems & Control	13
- Dicer Problems & Maintenance	8

Line V

- Product Changes	15
- Miscellaneous Maintenance	15

COMPOUND - Continued

	<u>Operating</u> <u>Days</u>	<u>Month</u>	<u>Production (M Lbs.)</u> <u>Avg./Day</u>	<u>Fiscal Y.T.D.</u>
Rigid Compound	30.5	5412	177	39493
% Prime		99.8		99.6
Capacity Utilization Factor		.909		.827

Downtime

Hours

- Product Changes 73
- Miscellaneous Maintenance 73
- Quality Problems & Control 42
- Scales Maintenance 22

	<u>Operating</u> <u>Days</u>	<u>Month</u>	<u>Production (M Lbs.)</u> <u>Avg./Day</u>	<u>Fiscal Y.T.D.</u>
Plasticizer	31	1479	48	12166
% Prime		81.3		88.7
Capacity Utilization Factor		.639		.715

Key Maintenance Work - J. B. Autrey, J. B. Hegwood

- The Line I Banbury was shut down during the month for a seal replacement. The lubrication return lines for the mill were also cleaned during the month because of plugging.
- The middle compound cooling tower pump was put back in service during the month. The pump had been sent out for reconditioning.
- The control panel on the #1 dicer was repaired during the month. The ground sensor, contact, and two resistors were changed out on the panel.

CCR 000006413

ENGINEERING - R. E. Polk, S. C. Hillman, M. R. Kane

PROJECTS IN DEVELOPMENT - GENERAL

EVC Cleanwall Technology

The D745 cleanwall trial was successfully run during the month of May in 5305/5265 service. Reactor jacket modifications to cool the vapor space alleviated the wall buildup problems experienced previously with the low molecular weight formulas. Additional testing with 5415 resin will be conducted in early July.

Initial testing of an alternative reactor cleaning nozzle has been completed out of the reactor. The need for in-reactor testing is being evaluated.

Donnelly Dusting Problem

Steve Hillman and John Levardsen visited Donnelly, a flexible compound customer, to assist them in solving a dusting problem at their compound pellet storage silos. A letter was sent to Donnelly with suggestions as to how to resolve the problem.

Patco Antistat Trials

Initial testing of an alternative antistat made by Patco was done on 5415 resin in a rotary dryer. This new antistat has the potential to eliminate fluid bed dusting problems and replace wet calcium stearate in 5385 resin. Q.C. testing at the plant showed no quality problems. Samples will be sent to R&D for evaluation. Additional testing on 5415 resin in the fluid bed dryer and 5385 resin is being planned.

Fourth Fiscal Quarter Capital Budget

The fourth quarter budget was sent to Houston on June 8. AFE's for five of the six projects were submitted with the budget.

CCR 000006414

ABERDEEN CHEMICAL PLANT
APPROVED CAPITAL PROJECTS

AFE NUMBER	PROJECT DESCRIPTION	STATUS
A858	ALTERNATE NATURAL GAS PIPELINE	THE SYSTEM HAS BEEN STARTED UP AND IS OPERATIONAL. PUNCHLIST ITEMS ARE IN PROGRESS.
D818	VINYL VALVE UPGRADE	INSTALLATION IS IN PROGRESS AND PLANNED FOR COMPLETION IN OCTOBER.
A519	PLANT ELECTRICAL UPGRADE	CONSTRUCTION IS 98% COMPLETE AND IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR JUNE.
A649	VINYL CONTROL SYSTEM MODERNIZATION	ENGINEERING IS IN PROGRESS. CONTROL ROOM CONSTRUCTION IS IN PROGRESS WITH COMPLETION PLANNED FOR SEPTEMBER.
A909	INERTS REMOVAL MODIFICATIONS	CONSTRUCTION IS IN PROGRESS WITH COMPLETION SCHEDULED FOR AUGUST.
C919	NEW WATER WELL	CLOSED TO FIELD CHARGES.
D619	PROPANE STORAGE AREA DELUGE SYSTEM	INSTALLATION WILL BE COMPLETED BY MID-JUNE.
D629	COMPOUND REBLEND TRANSFER SYSTEM	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS.
D749	LEAD HANDLING AND EXPOSURE REDUCTION	INSTALLATION IS IN PROGRESS WITH COMPLETION PLANNED FOR JULY.
D789	INERT GAS PURGING OF PA TANKS	CLOSED TO FIELD CHARGES.
D849	COMPOUND LINE 3 SEMI-BULK LEAD HANDLING	LONG LEAD ITEMS HAVE BEEN PLACED ON ORDER. PROJECT COMPLETION IS PLANNED FOR 10/90.
D859	COMPOUND SILO BRIDGE BREAKING	LONG LEAD ITEMS HAVE BEEN PLACED ON ORDER. COMPLETION IS PLANNED FOR 10/90.
D899	RAILCAR CLEANING RACK	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR 11/90.
F579	COMPOUND BOXING HOPPER MAGNETS	CLOSED TO FIELD CHARGES.
F669	COMPOUND LINE 5 HEATED PLASTICIZER	ENGINEERING IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR JULY.
F699	LOW MOLECULAR WEIGHT RESIN EXPANSION	INSTALLATION IS IN PROGRESS WITH COMPLETION PLANNED FOR JULY.
F739	DRYER NO.8 CONTAMINATION REDUCTION	CLOSED TO FIELD CHARGES.
F779	DRYERS NO.4 & 5 CONTAMINATION REDUCTION	DESIGN IS COMPLETE AND LONG LEAD ITEMS ARE ON ORDER.
G569	DRYBLEND DIV. VALVE AND CHUTE REPLACEMENT	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR JULY.
G659	NEW DRYER BAGHOUSES	MODIFICATIONS TO THE INLET AIR BAFFLES ARE BEING TESTED.
G719	COMPOUND SEWER REVISIONS	INSTALLATION IS IN PROGRESS WITH COMPLETION IN JULY.
G759	WASTE OIL REDUCTION	PUNCHLIST ITEMS ARE IN PROGRESS WITH COMPLETION PLANNED FOR MID-JUNE.
G819	VCM SIGHT GLASS REPLACEMENT	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR AUGUST.
G839	PLANT WATER RECYCLE	DESIGN IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR OCTOBER.
H679	PLASTICIZER REACTOR AGITATORS	CLOSED TO FIELD CHARGES.
H729	TORQUE RHEOMETER REPLACEMENT	CLOSED TO FIELD CHARGES.
H769	PLANT DIVERTER VALVE REPLACEMENT	INSTALLATION IS COMPLETE EXCEPT FOR PUNCHLIST ITEMS.
H799	HIGHWAY 25 LAND PURCHASE	NEGOTIATIONS ARE UNDERWAY.
H829	RECOVERY SYSTEM COMPRESSOR - SPARE	CLOSED TO FIELD CHARGES.
H879	ROOF UPGRADE	CLOSED TO FIELD CHARGES.
A540	REDUCED FLAME & SMOKE COMPOUND PROJECT	INSTALLATION IS COMPLETE ON ALL DESIRED MODIFICATIONS TO DATE.
G560	TC SPILL CONTAINMENT	DESIGN IS COMPLETE. BIDS ARE DUE IN EARLY JULY.
H500	PLANT WATER SYSTEM	ENGINEERING IS IN PROGRESS. PROJECT COMPLETION IS PLANNED FOR MID-1991.
H510	WEST INCINERATOR REPLACEMENT	THE INCINERATOR WILL BE PLACED OF ORDER IN JUNE. DELIVERY IS EXPECTED IN 44-48 WKS.
H520	MISCELLANEOUS CAPITAL PROJECTS - \$15M	ENGINEERING IS IN PROGRESS ON 28 PROJECTS.
L530	FURNITURE AND OFFICE EQUIPMENT	EQUIPMENT IS ON ORDER.

CCR 000006415

ENVIRONMENTAL - F. G. Jeanson

Water

All wastewater discharge parameters were met for the month of May.

The Mississippi Department of Environmental Quality (MDEQ) conducted an inspection of all wastewater outfalls. No problems were found during this inspection.

Waste

Waste shipments for the month included:

- One bulk load of separator oil was shipped to M&M Chemicals in Gadsden, Alabama.
- One load of plasticizer filter cake (seventy-seven drums) was shipped to CWM in Emelle, AL.

A letter was written describing the plant recommendations for old pond #1 which is a past landfill site.

Superfund

A visit to Sun Polymers to evaluate pond resin recovery was conducted this month. Conoco and Vista participated in this visit. Sun Polymers is currently recovering two ponds of PVC resin, 40MM pounds, from a B.F. Goodrich plant in Canada.

A meeting was set up with the MDEQ in June to review our sites and any remediation plans. Conoco will be involved in this meeting.

Several meetings were held with employees and city officials to explain the Superfund sites on our property and an EPA study that was done on these sites. The MDEQ was also notified of findings in the EPA study.

Air

The modeling study on VCM emissions from the plant was completed in late May and submitted to the MDEQ. If the MDEQ approves the study, they will issue a public notice for our modified air permit application. Thirty days later if there are no objections from the public, the MDEQ permit board will review and hopefully approve the application.

Miscellaneous

I attended a MISTAP regulation review conference during the month.

An environmental training seminar was held for plant operations and engineering personnel.

I attended the annual environmental meeting in Austin, TX.

ENERGY CONSERVATION - D. A. Moore

	<u>May, 1990</u>	<u>Fiscal Y.T.D.</u>
I. <u>Energy Conservation Data</u> ⁽¹⁾		
A. Unadjusted EUI	<4.0%>	< 7.7%>
B. Adjusted EUI	<3.9%>	< 7.9%>
C. BTU/Lb. Product	2554.0	2644.0
D. Total Energy Consumption MMM BTU	132.44	1053.20

II. Plant Energy Conservation Program

A. Maintenance

There were sixteen energy related items completed in May, 1990. Fifteen of these items were steam leak repairs. The remaining one was steam trap repairs.

III. Boiler Operation

<u>Boiler</u>	<u>Combustion Efficiency %</u>	
	<u>May.. 90</u>	<u>Fiscal Y.T.D.</u>
No. 1	83.3%	83.4%
No. 2	83.0 ⁽¹⁾	83.3%
No. 3	82.9%	83.0%

(1) Boiler number two was operated one day during the month.

HUMAN RESOURCE REPORT

May, 1990

Personnel - J. E. Beall

Employment

Allen Bodron - Rehire
Berlin Genetti - New Hire
Anthony Deanes - New Hire

Promotions/Transfers

Robert "Bud" Stone - promoted from General Mechanic "B"
to General Mechanic "A".

Timothy Arbeiter - transferred from Senior Analyst -
Houston, Tx. to Quality Management Coordinator -
Aberdeen.

Retirements

None

Terminations/Resignations

Brian Aftergut

To/From Leave of Absence

None

CCR 000006418

ABERDEEN, MISSISSIPPI

MAY , 1990

MONTHLY PERSONNEL REPORT

Salaried Employees 79*
 Hourly Employees 172
 Total Employees 251

Minority Employees #, %
 Salaried 7 9%
 Hourly 66 38%
 Total 73 29%

Employees (Hourly)

New Employees 0
 Terminations 0

Hourly Min. Hired 0
 % Min. Hired 0
 Hourly Min. Term. 0
 % Min. Term. 0

DEPARTMENTS PAR #EMPLOYEES MIN. EMP. 3MIN. NEW HIRES YTD TERM. YTD. TURNOVER YTD.

Warehouse	<u>16</u>	<u>15</u>	<u>8</u>	<u>53</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Gen. Plant	<u>13</u>	<u>16</u>	<u>5</u>	<u>31</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Maintenance	<u>41</u>	<u>41</u>	<u>10</u>	<u>24</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Laboratory	<u>24</u>	<u>24</u>	<u>5</u>	<u>22</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Compound	<u>40</u>	<u>38</u>	<u>26</u>	<u>67</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Vinyl	<u>33</u>	<u>33</u>	<u>10</u>	<u>30</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Plasticizer	<u>5</u>	<u>5</u>	<u>2</u>	<u>40</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Number of Applicants:

Month 0 Year To Date 0

APPLICANT BREAKDOWN:

* Minority 0 % Minority 0

* Female 0 % Female 0

Hires (Hourly):

Month 0 Year To Date 0

Terminations (Hourly):

Month 0 Year To Date 0

Overall Turnover 0

Projected Annual Turnover 0

CCR 000006419

MAY, 1990

	STR TIME HRS WKD	OVERTIME HOURS		OVERTIME AS A % OF STR TIME	HRS LOST DUE TO ABSENCE	ABSENCE AS A % OF SCHEDULED TIME				YEAR-TO- DATE	VACATION HOURS
		NONCONTROL	CONTROL			SICKNESS	PAID	NONPAID	TOTAL		
JULY	1380.25	48.00	291.50	24.60	155.75	10.43	0.00	0.85	11.28	2.38	144.00
YARD	780.00	24.00	77.50	13.01	0.00	0.00	0.00	0.00	0.00	4.75	60.00
MAINTENANCE	6364.50	16.00	687.00	9.79	131.50	0.63	0.63	0.81	2.07	4.56	640.00
QC LAB	3243.50	96.00	514.00	18.81	216.75	4.07	1.85	0.76	6.68	2.78	324.00
LABORERS	384.00	0.00	2.00	0.52	0.00	0.00	0.00	0.00	0.00	0.73	0.00
WAREHOUSE	1143.75	0.00	89.00	7.78	200.25	17.49	0.00	0.02	17.51	13.44	80.00
STORES	343.25	0.00	0.00	0.00	0.75	0.00	0.00	0.22	0.22	1.45	40.00
DEVELOPMENT LAB	1067.25	13.25	73.50	8.13	2.00	0.00	0.00	0.19	0.19	0.46	104.00
DRI BLEND	1164.00	36.00	95.25	11.28	48.00	1.03	3.09	0.00	4.12	0.96	60.00
COW-BOUND	6898.50	184.00	887.75	14.38	815.00	9.28	2.05	0.45	11.81	4.24	384.00
VIRAL	7237.25	224.00	718.25	13.02	77.75	0.00	0.33	0.74	1.07	1.51	692.00
PLASTICIZER	915.00	24.00	26.75	5.55	21.00	1.31	0.00	0.98	2.30	3.47	88.00
GENERAL HELPERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	30921.25	665.25	3362.50	12.83	1668.75	3.82	0.98	0.60	5.40	3.44	2616.00
PLANT											

TOTAL PLANT HOURS FOR JURY DUTY..... 12.00
 TOTAL PLANT HOURS FOR NATIONAL GUARD/RESERVE DUTY..... 220.00
 TOTAL PLANT HOURS FOR DEATH IN FAMILY..... 72.00

CCR 000006420

1990 FISCAL YEAR-TO-DATE

DEPT	OVERTIME HOURS		OVERTIME AS A % OF		ABSENCE AS A % OF STRAIGHT TIME		YEAR-TO-DATE	
	STR TIME	OVERTIME HOURS	STR TIME	AS A % OF	ABSENCE	HRS LOST	SICKNESS	PAID
	HRS WRKD	NONCONTROL	CONTROL	STR TIME	HRS LOST	SICKNESS	PAID	NONPAID
								TOTAL
DEPT								
LABOR	10624.00	324.00	1275.00	15.05	249.50	1.36	0.39	2.35
UTILITY	5152.00	192.00	960.75	22.37	252.60	4.89	0.00	4.89
MAINTENANCE	43533.00	339.75	6358.00	15.37	1961.00	3.12	0.40	4.50
QC LAB	23825.75	516.00	1545.00	8.65	633.75	1.26	0.35	2.66
JANITORS	2747.00	0.00	85.75	3.12	21.00	0.00	0.58	0.18
WAREHOUSE	8391.25	0.00	630.25	7.51	1155.25	13.01	0.29	0.47
STORES	2468.00	0.00	62.50	2.53	37.00	0.32	0.00	1.18
DEVELOPMENT LAB	7305.75	95.50	625.50	9.87	34.50	0.33	0.00	0.14
DRY BLEND	8166.75	108.00	620.50	8.92	81.00	0.15	0.44	0.40
COMPOUND	50996.25	652.00	5202.50	11.48	2165.50	3.06	0.55	0.61
VINYL	51529.25	1604.00	4758.75	12.35	801.25	0.35	0.31	0.90
PLASTICIZER	6375.50	108.00	294.75	6.32	190.75	1.88	0.00	1.11
GENERAL HELPERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	221115	3939.25	22419.25	11.92	7582.50	2.28	0.37	0.78
PLANT								3.43
								3.44
								15592.00

TOTAL PLANT HOURS FOR JURY DUTY..... 100.00
 TOTAL PLANT HOURS FOR NATIONAL GUARD/RESERVE DUTY..... 232.00
 TOTAL PLANT HOURS FOR DEATH IN FAMILY..... 472.00

CCR 000006421

ADMINISTRATIVE SERVICES - J. E. Little

Safety

There were no safety instances this month.

Cost Savings

Savings due to competitive bidding were \$16,475 for May, and \$91,419 for FY1990.

Savings due to prompt payment discounts were \$2257 for May, and \$16,332 for FY1990.

Savings due to using excess materials (AFE and work order stores) were \$561 for May, and \$17,090 for FY1990.

Warehouse - Finished Goods Inventory

Slow moving and off-grade inventories are still a major concern - approximately 35% of total packaged inventories.

Strategic Initiatives

Darrel Peterson, U.E.&C., conducted VMS overview training May 15-17. Pre-implementation work is progressing well.

I met with Price-Waterhouse to discuss activity based cost accounting.

Employee Development

Mike Swierc and Tommy Cummings attended IPSM May 16 & 17.

Tommy Cummings and Amy Vaughn attended Mississippi State Tax Seminar in Tupelo, MS, on May 10.

Ruth Morris, Data Processing, was in Aberdeen May 25-28 to make additional revisions to the payroll management system.

Meetings

5/02 Price-Waterhouse - activity based cost accounting.

5/09 Gold Bond visit - discussed raw material coordination.

5/09 Mike Swierc met with Motion Industries concerning quality program.

ADMINISTRATIVE SERVICES - Continued

Meetings - continued

- 5/15 The Stores Team made a presentation to Bob Seymour's Natural Team.
- 5/16 Southwire meeting
 OASIS - task review
- 5/24 Mike Swierc visited Halstab (Hammond, Ind.) for the supplier recognition presentation.
- 5/25 Southwire presentation
- 5/31 The Stores Team made a presentation to Engineering.

ABERDEEN CHEMICAL PLANT
SHIPPING ANALYSIS
MAY 1999

-SHIPMENTS BY PRODUCTS-	MONTH			YTD		
	PUBLIC	IFT/ITC	EXCHANGE	PUBLIC	IFT/ITC	EXCHANGE
RESIN-BULK	29,947,360	11,272,980	367,290	159,083,172	78,635,350	1,956,400
RESIN-PACKAGED	442,331	352,850	0	2,523,000	1,754,000	0
FLXIBLE COMPOUND-BULK	1,095,210	929,050	0	11,762,510	7,646,200	0
FLXIBLE COMPOUND-PACKAGED	3,002,503	80,878	0	25,100,875	1,254,237	0
NEW BUSINESS	13,800	0	0	37,070	0	0
RIGID COMPOUND-BULK	2,834,460	1,230,550	0	25,046,210	6,933,400	0
RIGID COMPOUND-PACKAGED	411,642	0	0	1,735,325	268,723	0
TOLLING - BULK	0	0	507,300	0	0	5,255,078
TOLLING - PACKAGED	0	0	0	0	0	128,265
PLASTICIZER	215,860	170,550	384,860	1,133,460	1,932,060	1,471,810
TOTAL	30,573,166	14,051,158	1,259,360	226,420,822	96,424,050	8,811,545

-SHIPMENTS BY MODE-

BULK:	MODE			TOTAL
	RAILCAR	CUSTOMER PICKUP	COMMON CARRIER	
RESIN	164	19	65	248
FLXIBLE COMPOUND	13	0	0	21
RIGID COMPOUND	24	0	13	37
PLASTICIZER	3	0	7	10
TOTAL MAY	204	27	85	316

YTD				TOTAL
	RAILCAR	CUSTOMER PICKUP	COMMON CARRIER	
RESIN	1,180	201	482	1,863
FLXIBLE COMPOUND	97	11	35	143
RIGID COMPOUND	181	15	129	325
PLASTICIZER	19	0	29	48
TOTAL YTD	1,477	227	675	2,379

CCR 000006424

PACKAGED:	MODE				TOTAL
	CUSTOMER PICKUP	COMMON CARRIER	TOFC	CONTAINER	
RESIN	5	18	0	0	23
FLXIBLE COMPOUND	31	72	0	0	103
RIGID COMPOUND	0	16	0	0	16
PLASTICIZER	0	0	0	0	0
TOTAL MAY	36	106	0	0	142

YTD					TOTAL
	CUSTOMER PICKUP	COMMON CARRIER	TOFC	CONTAINER	
RESIN	30	181	0	0	211
FLXIBLE COMPOUND	173	579	4	0	756
RIGID COMPOUND	10	70	0	1	81
PLASTICIZER	0	3	0	0	3
TOTAL YTD	213	753	4	1	971

LABORATORY - J. M. Edwards, Jr.

A. Safety - There were no safety incidents in the Laboratory during May. The monthly safety meeting topic was the new "Lockout/Tagout Procedure" taught by Bruce Trego.

B. Customer Contacts - There were five customer contacts during May.

1. Jim Edwards, accompanied by Justyn Miller, visited Gold Bond in Sardis, Mississippi. The target specifications for color in RP-28 WHT 122 were discussed. The call was made on 5/23.
2. D. G. Mouldings made a plant visit and a lab tour was given on 5/11.
3. Representatives from Gold Bond made a plant visit on 5/9 and a lab tour was given.
4. Southwire made a plant visit on 5/25 to present the Certified Quality Vendor award to Vista. A lab tour was given.
5. A representative from Intex visited the plant on 5/29/90 and was given a lab tour.

C. Customer Q.C. Problem Reports

5/07 PVC Compounders, Kendallville, IN

PVC Compounders reported high moisture content in a 5415 railcar. Samples of the car were sent to Aberdeen and were confirmed to be high moisture content. The railcar had been loaded from silos filled while the fluid bed dryer was experiencing high moisture problems. The car was returned to Vista.

5/08 AT&T Network Systems, Omaha, Nebraska

AT&T sent the Aberdeen lab a sample of contamination from a screen pak running 34862 GRY 546. The contamination sample was identified by AT&T as brownish granular material and metal pieces. The sample was sent to R&D Austin for analysis. The metal was determined to be stainless steel. The granular material was mostly chlorine with small amounts of aluminum, silicone and lead. A formal response will be written and sent to AT&T.

LABORATORY - Continued

C. Customer O.C. Problem Reports

5/09 Flexible Technologies, Abbeville, SC

Flexible Technologies reported bad dicing and stringers in 18031 WAT C, lot 10Q13. Boxes with the same lot number in Aberdeen were inspected. Four of the twenty-four boxes on the floor were found to have bad dicing. Seven were down-graded as a precaution.

5/29 & 6/2 Gold Bond, Sardis, MS

Gold Bond returned two railcars of RP-28 on 5/29 and on 6/2. The complaint was that the dry blend was too dark. Quality control records show a definite shift lower in L value for that production run. The reason for that shift is still under investigation.

5/31 Vytron Corporation, Loudon, TN

Vytron complained that 17462 BLK (lot 59L12) and 17462 NAT (lot 50R15) will not produce acceptable extrusions. A review of production records show high hard particle problems during the production of both lots of material.

D. Requests for Corrective Action

There were no requests for corrective action during the month of May.

E. Product Waivers

<u>Customer</u>	<u>Product</u>	<u>Reason</u>	<u>No.</u>
Vulcan Plastics	5385-3P	Bulk Density Range	1 R/C

F. RVCM Summary

RVCM of In-Process Samples

The following is a summary of residual VCM results on in-process samples. None of the reactor daily averages exceeded 400 ppm RVCM during the month of May, 1990.

	<u>Reactor</u>	<u>Drier</u>	
	<u>Slurries</u>	<u>5265</u>	<u>5305</u>
Number of Samples	931	36	70
Average RVCM, ppm	134	0.417	0.294

LABORATORY - Continued

RVCN of Shipment Samples

The following is a summary of the residual VCM analysis of shipment samples for the month of May, 1990.

<u>Product</u>	<u>Number of Samples</u>	<u>Average RVCN, ppm</u>
5265	39	0.101
5305	106	0.157
5385	59	0.539
5395	11	0.116
5415	67	0.053
Dry Blend	47	0.047
Debox	12	0.336
Pond	1	0.530

G. Resin Process Capabilities (based on dryer "regulars")

	<u>5265</u>	<u>5305</u>	<u>5385</u>	<u>5395</u>	<u>5415</u>
Bulk Density	1.50	0.78	2.75	0	1.40
Inherent Viscosity	2.17	0.60	0.67	0.90	0.77
(vs. 0.715 - 0.744)	----	0.33	----		
L Color	8.11	2.92	3.00	6.67	4.44
A Color	3.17	8.67	----		
B Color	2.83	2.67	2.50	2.67	6.33
% on Pan	1.29	1.18	1.56	0.94	2.75
(vs. 2%, max.)	----	----	----	----	0.25
% thru 140 Mesh	1.07	0.63	1.45	0.84	2.54
Drytime	----	----	2.00	2.33	2.00
Mets I.R.	----	----	----	4.13	2.22
(vs. 95% of control)	----	----	----	----	1.52
Hard Particles, (% > 10)	----	----	19.4	4.6	0.9
Average particle size, microns	138	134	160	139	174

H. Flexible Compound Quality Summary

	<u>Adjustments</u>		<u>Rejections</u>	
	<u>M Lbs. (%)</u>		<u>M Lbs. (%)</u>	
Hardness	26.0	<0.42>	7.5	<0.12>
Color	52.0	<0.84>	1.4	<0.02>
Hard Particles	----	----	11.7	<0.19>
Heat Stability	7.0	<0.11>	----	----
Contamination	----	----	14.8	<0.24>
Dicing	----	----	9.1	<0.15>
Totals	85.0	<1.37>	44.5	<0.72>

CCR 000006427

LABORATORY - Continued

I. Rigid Compound Quality Summary

	<u>Rejections</u>	
	<u>M Lbs.</u>	<u>(%)</u>
Torque Rheometry	6.3	<0.12>
Color	<u>44.8</u>	<u><0.82></u>
Total	51.1	<0.94>

J. Miscellaneous

1. Software is being written for the Q.C. Supervisor to review, add customers and print out a certificate of analysis for customer shipments.
2. Dave Cox assisted Blane with setting up their G.C. for plasticizer analysis. Methods were tested and samples were sent.
3. The lab re-issued six compound formulas with added BPA due to removing BPA from the 108P plasticizer.
4. Billy Paul Sizemore attended two days of IPSM training.
5. Jim Edwards attended two days of rigid formulations and testing training in Austin.
6. All six natural teams met once during the month.
7. The National Sanitation Foundation (NSF) made its annual inspection this month. They found no violations in production, facilities, quality records or procedures.

SAMPLE SHIPMENTS

MAY 1990

RESIN

Ship Date	Product	Amount	Customer
5/02/90	Pond Resin	5 lbs.	W. K. Merriman Inc.
5/02/90	Pond Resin	50 lbs.	V. P. I.
5/02/90	Pond Resin	50 lbs.	American Trading
5/08/90	Pond Resin	50 lbs.	Shawnee Chemical
5/08/90	5385	2 lbs.	CONNIE NAKAMURA
5/07/90	5385	200 lbs.	Solem Industries
5/07/90	5265	500 lbs.	Arlington Mills
5/16/90	5265	2 lbs.	Procter & Gamble
	5305	2 lbs.	
5/16/90	5385	100 lbs.	D. G. Moulding
5/18/90	5385	5 lbs.	KOHKOKU, USA
5/21/90	5385	2X2 lbs.	Dayton Extruded Plastics
5/22/90	5385	5 lbs.	Uniroyal Chemical Co.
5/22/90	Pond Resin	50 lbs.	American Trading
5/25/90	5415	50 lbs.	KOHKOKU, USA
5/30/90	5415	5 lbs.	Uniroyal Chemical
5/31/90	5465	50 lbs.	KOHKOKU, USA

COMPOUND

Ship Date	Product	Amount	Customer
5/02/90	18031 WAT CL	1500 lbs.	Furon/Synflex
5/09/90	48451 BLK 48562 BLK	50 lbs.	LOF Tech
5/18/90	34643 NAT	50 lbs.	CABLEBOL
5/22/90	419-67B BLK 419-68 BLK	1500 lbs. 1500 lbs.	Times Fiber

CCR 000006429

COMPOUND (Cont.)

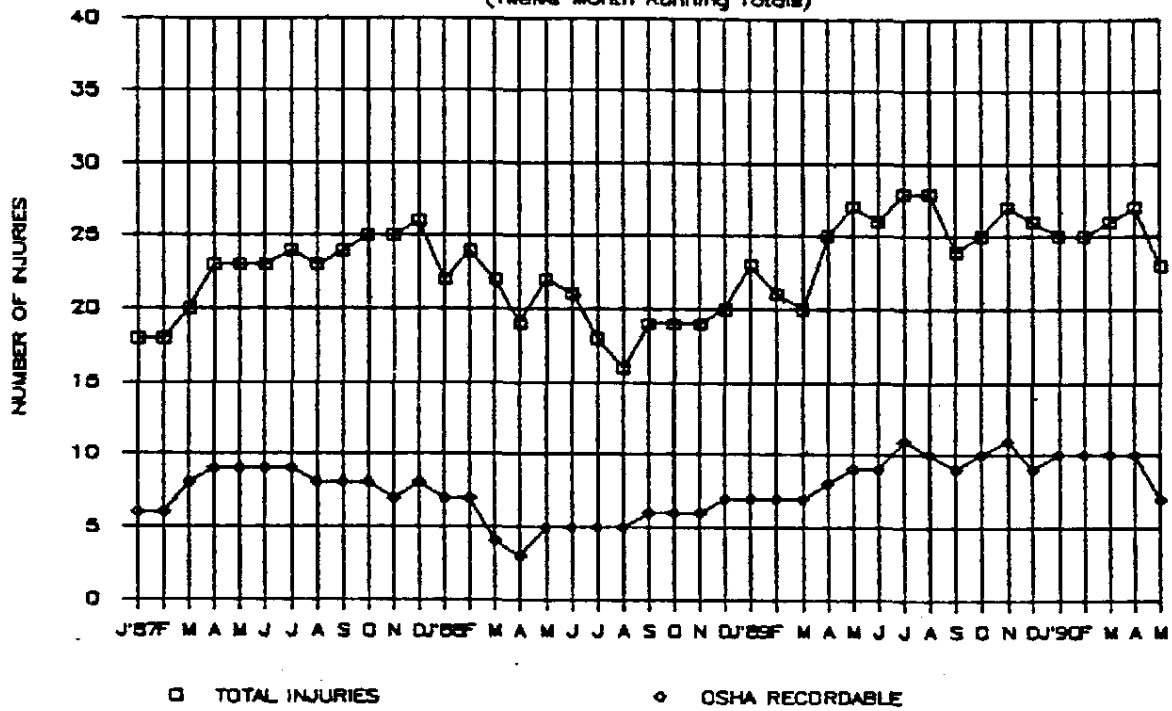
5/22/90	38601 BLK	200 lbs.	ELECTROCONDUCTORES
5/23/90	1220-06X NAT	4500 lbs.	Inovative Plastics
5/24/90	27121 NAT	50 lbs.	ABC Plastics
5/25/90	15072 NAT	100 lbs.	Macklanburg-Duncan
	18961 NAT	100 lbs.	
5/30/90	16841 NAT OG	30 lbs.	Ron Walker
	17462 WHT OG	30 lbs.	
	18162 BLK OG	30 lbs.	
	18031 WAT CL OG	2 X 30 lbs.	
5/31/90	38601 NAT	200 lbs.	ELECTROCONDUCTORES

PLASTICIZER

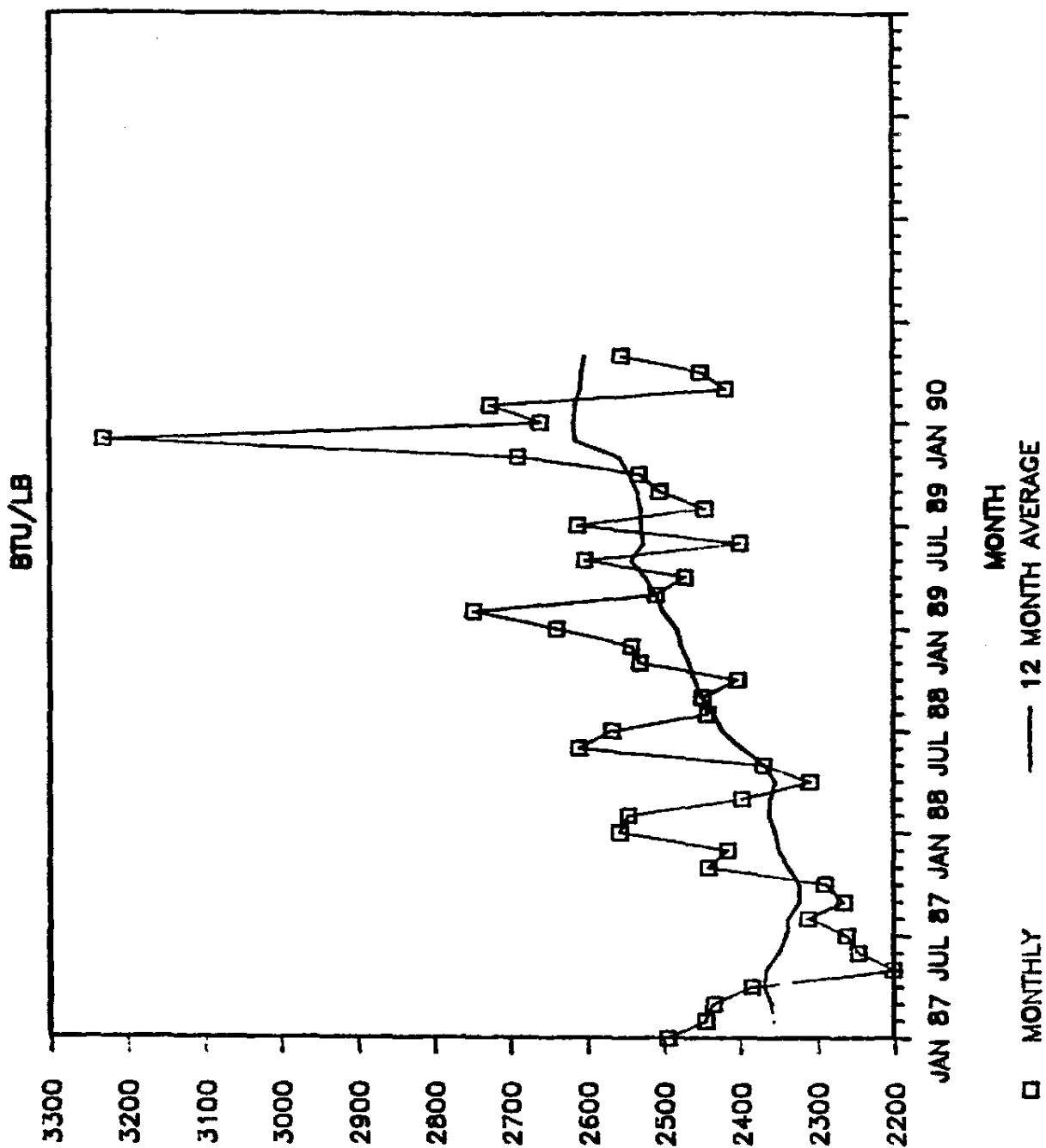
<u>Ship Date</u>	<u>Product</u>	<u>Amount</u>	<u>Customer</u>
5/09/90	610P	1 gal.	Blane Polymers

ABERDEEN CHEMICAL PLANT INJURIES

(Twelve Month Running Totals)



ABERDEEN ENERGY CONSUMPTION



BTU/LB

TO: DISTRIBUTION

→ Becky
OKC

FROM: H. Garrison
DATE: August 8, 1990

VISTA

Interoffice
Communication

SUBJECT: RAILCAR QUALITY DATA - July, 1990

Attached for your information are copies of control charts for a number of key quality parameters as measured in railcars loaded at OKC in July, 1990. A brief comparison of July results versus the three previous months is presented in the following table:

	<u>JUL 1990</u>	<u>JUN 1990</u>	<u>MAY 1990</u>	<u>APR 1990</u>
<u>Bulk Density (Spec. = 0.510 min.)</u>				
AVG	0.567	0.571	0.562	0.561
UCL	0.605	0.604	0.598	0.621
LCL	0.529	0.538	0.525	0.501
UCL-LCL	0.076	0.066	0.073	0.120
cpk	1.5	1.8	1.4	0.9
<u>% Moisture (Spec. = 0.30 max.)</u>				
AVG	0.12	0.12	0.12	0.10
UCL	0.15	0.16	0.17	0.15
LCL	0.09	0.08	0.08	0.05
UCL-LCL	0.06	0.08	0.09	0.10
cpk	5.5	4.4	4.1	4.3
<u>% thru 140 (Spec. = 20.0 max)</u>				
AVG	6.8	6.8	7.4	8.0
UCL	9.0	8.4	9.7	11.0
LCL	4.5	5.1	5.1	5.1
UCL-LCL	4.5	3.3	4.6	5.9
cpk	5.9	8.1	5.5	4.1
<u>% on Pan (Spec. = 5.0 max.)</u>				
AVG	2.3	2.1	2.3	1.9
UCL	3.1	2.6	3.0	3.0
LCL	1.5	1.6	1.5	0.8
UCL-LCL	1.6	1.0	1.5	2.2
cpk	3.5	5.6	3.6	2.9
<u>RVCN (PPM) (Spec. = 2.0 max. Pipe/8.5 max. siding)</u>				
AVG	0.9	0.6	0.7	0.8
UCL	1.4	1.0	1.3	1.5
LCL	0.3	0.3	0.1	0.1
UCL-LCL	1.1	0.7	1.2	1.8
cpk	2.3	3.8	2.2	1.8

CCR 000006433

RAILCAR QUALITY DATA - July, 1990
August 8, 1990
Page 2

Average results and consistency (as measured by UCL-LCL and cpk) for most parameters (except % moisture) slipped from June levels but were for the most part an improvement versus prior months. The only attributable cause is the erratic operations in July --- up and down operations, coarse batch, recovery system problems, etc. In light of these problems, it is extremely encouraging to see that the plant was able to maintain its focus and minimize the impact on quality --- clearly a sign of a changing culture!

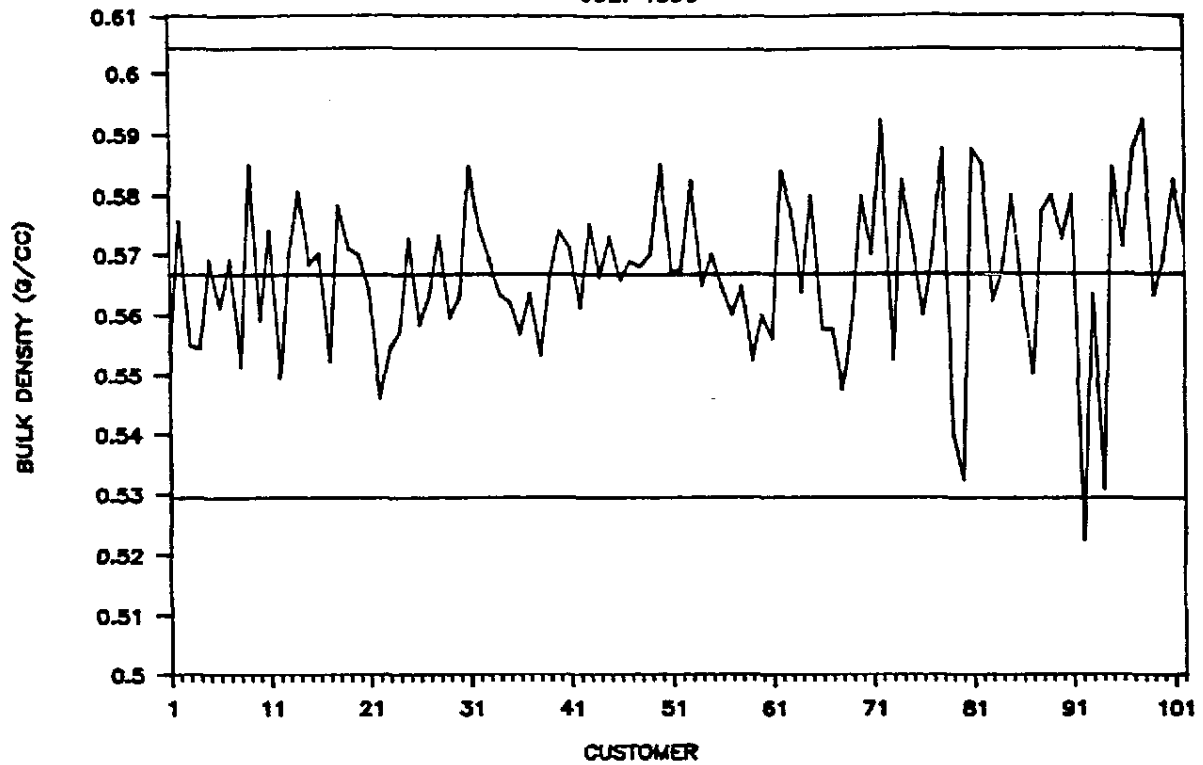


H. GARRISON
PLANT MANAGER

HDG/gsc
raildata.Jul

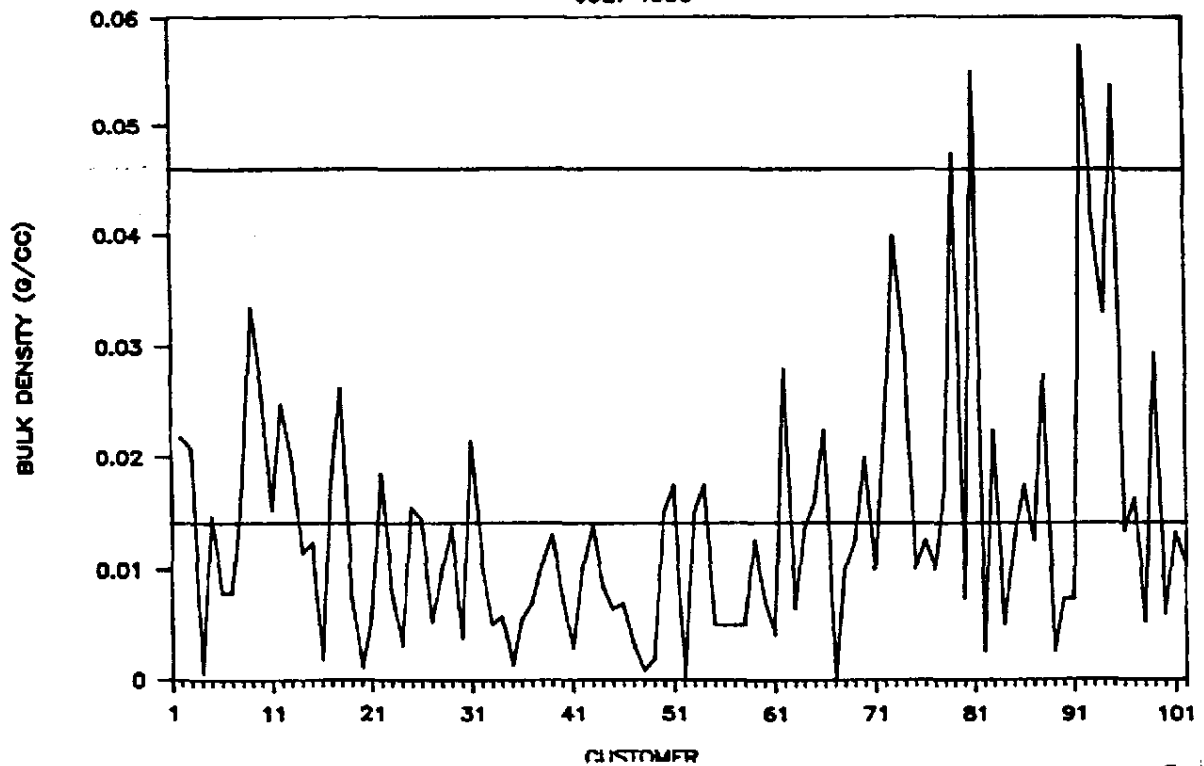
OKC PVC SHIPMENTS (X CHART)

JULY 1990



OKC PVC SHIPMENTS (R CHART)

JULY 1990



CCR 000006435

 OKC RC DATA JULY 1990 TOTAL DATA POINTS= 102.00

CPK = 1.52

DATE LOADED	CAR NUMBER	BULK DENS	MOVING RANGE	CURRENT X BAR	R BAR	UCL X	LCL X	UCL R
48	16	73391	0.568	0.001	0.567	0.014	0.605	0.529
49	16	42249	0.570	0.002	0.567	0.014	0.605	0.529
50	16	46484	0.585	0.015	0.567	0.014	0.605	0.529
51	17	73390	0.568	0.017	0.567	0.014	0.605	0.529
52	17	73393	0.568	0.000	0.567	0.014	0.605	0.529
53	17	73394	0.583	0.015	0.567	0.014	0.605	0.529
54	17	73391	0.585	0.017	0.567	0.014	0.605	0.529
55	18	44750	0.570	0.005	0.567	0.014	0.605	0.529
56	18	46394	0.565	0.005	0.567	0.014	0.605	0.529
57	18	73410	0.560	0.005	0.567	0.014	0.605	0.529
58	18	73401	0.565	0.005	0.567	0.014	0.605	0.529
59	18	43717	0.553	0.013	0.567	0.014	0.605	0.529
60	19	45701	0.580	0.008	0.567	0.014	0.605	0.529
61	19	41842	0.556	0.004	0.567	0.014	0.605	0.529
62	19	73403	0.584	0.028	0.567	0.014	0.605	0.529
63	19	52472	0.578	0.006	0.567	0.014	0.605	0.529
64	19	46476	0.564	0.014	0.567	0.014	0.605	0.529
65	19	73403	0.580	0.016	0.567	0.014	0.605	0.529
66	20	43749	0.558	0.022	0.567	0.014	0.605	0.529
67	23	41597	0.558	0.000	0.567	0.014	0.605	0.529
68	23	46538	0.548	0.010	0.567	0.014	0.605	0.529
69	23	45716	0.560	0.012	0.567	0.014	0.605	0.529
70	24	43699	0.580	0.020	0.567	0.014	0.605	0.529
71	24	46401	0.570	0.010	0.567	0.014	0.605	0.529
72	25	46472	0.593	0.023	0.567	0.014	0.605	0.529
73	25	46507	0.553	0.040	0.567	0.014	0.605	0.529
74	25	46530	0.583	0.030	0.567	0.014	0.605	0.529
75	25	41645	0.573	0.010	0.567	0.014	0.605	0.529
76	25	44754	0.560	0.012	0.567	0.014	0.605	0.529
77	26	46464	0.570	0.010	0.567	0.014	0.605	0.529
78	26	46503	0.588	0.018	0.567	0.014	0.605	0.529
79	26	46465	0.540	0.047	0.567	0.014	0.605	0.529
80	26	42057	0.533	0.007	0.567	0.014	0.605	0.529
81	27	46547	0.588	0.055	0.567	0.014	0.605	0.529
82	27	46457	0.585	0.003	0.567	0.014	0.605	0.529
83	27	46463	0.563	0.022	0.567	0.014	0.605	0.529
84	27	41618	0.568	0.005	0.567	0.014	0.605	0.529
85	28	42181	0.580	0.012	0.567	0.014	0.605	0.529
86	28	48045	0.563	0.017	0.567	0.014	0.605	0.529
87	28	41605	0.550	0.012	0.567	0.014	0.605	0.529
88	28	46470	0.578	0.027	0.567	0.014	0.605	0.529
89	28	48051	0.580	0.002	0.567	0.014	0.605	0.529
90	29	46485	0.573	0.007	0.567	0.014	0.605	0.529
91	29	48031	0.580	0.007	0.567	0.014	0.605	0.529
92	29	48030	0.523	0.057	0.567	0.014	0.605	0.529
93	30	41406	0.564	0.041	0.567	0.014	0.605	0.529
94	30	46480	0.533	0.032	0.567	0.014	0.605	0.529

CCR 000006436

ORC RC DATA

JULY

1990

TOTAL DATA POINTS= 102.00

CPR =

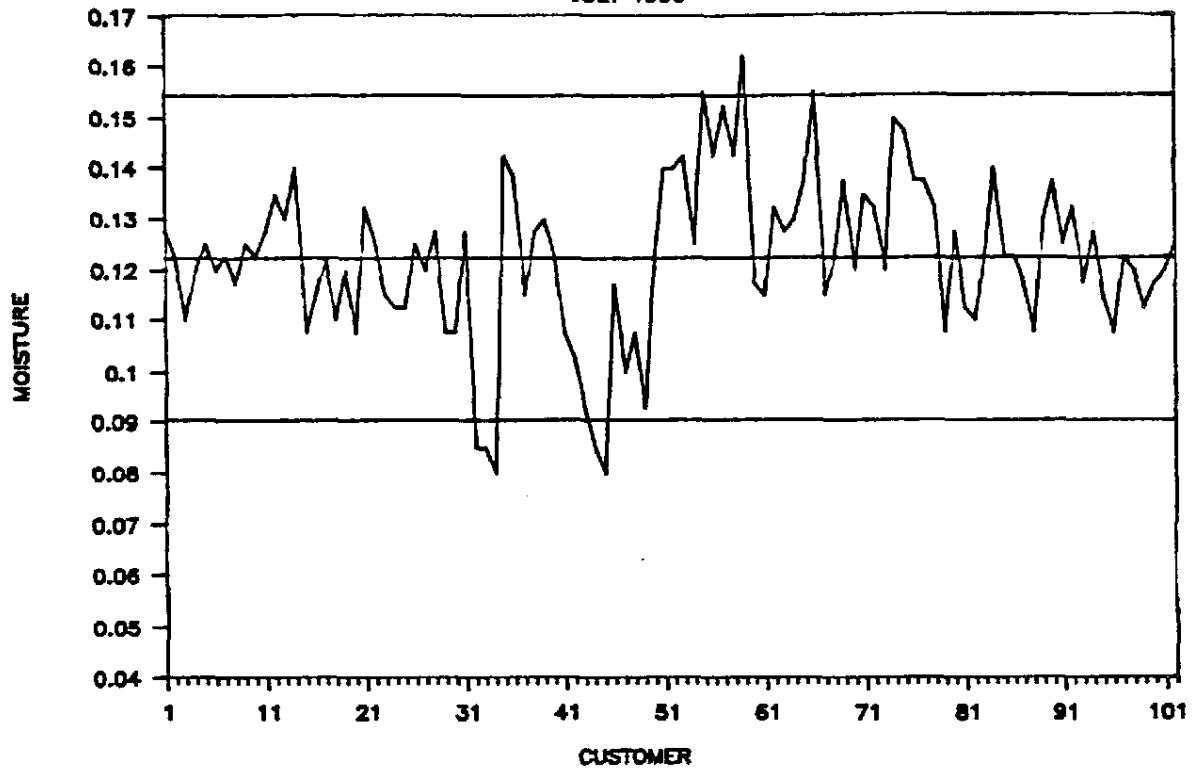
1.52

DATE LOADED	CAR NUMBER	BULK DENS	MOVING RANGE	CURRENT X BAR	R BAR	UCL X	LCL X	UCL R
95	30	46397	0.585	0.054	0.567	0.014	0.605	0.529
96	30	46450	0.571	0.013	0.567	0.014	0.605	0.529
97	30	46514	0.588	0.016	0.567	0.014	0.605	0.529
98	31	46533	0.593	0.005	0.567	0.014	0.605	0.529
99	31	46544	0.563	0.029	0.567	0.014	0.605	0.529
100	31	46581	0.569	0.006	0.567	0.014	0.605	0.529
101	31	46551	0.583	0.013	0.567	0.014	0.605	0.529
102	31	46471	0.572	0.010	0.567	0.014	0.605	0.529

CCR 000006437

OKC PVC SHIPMENTS (R CHART)

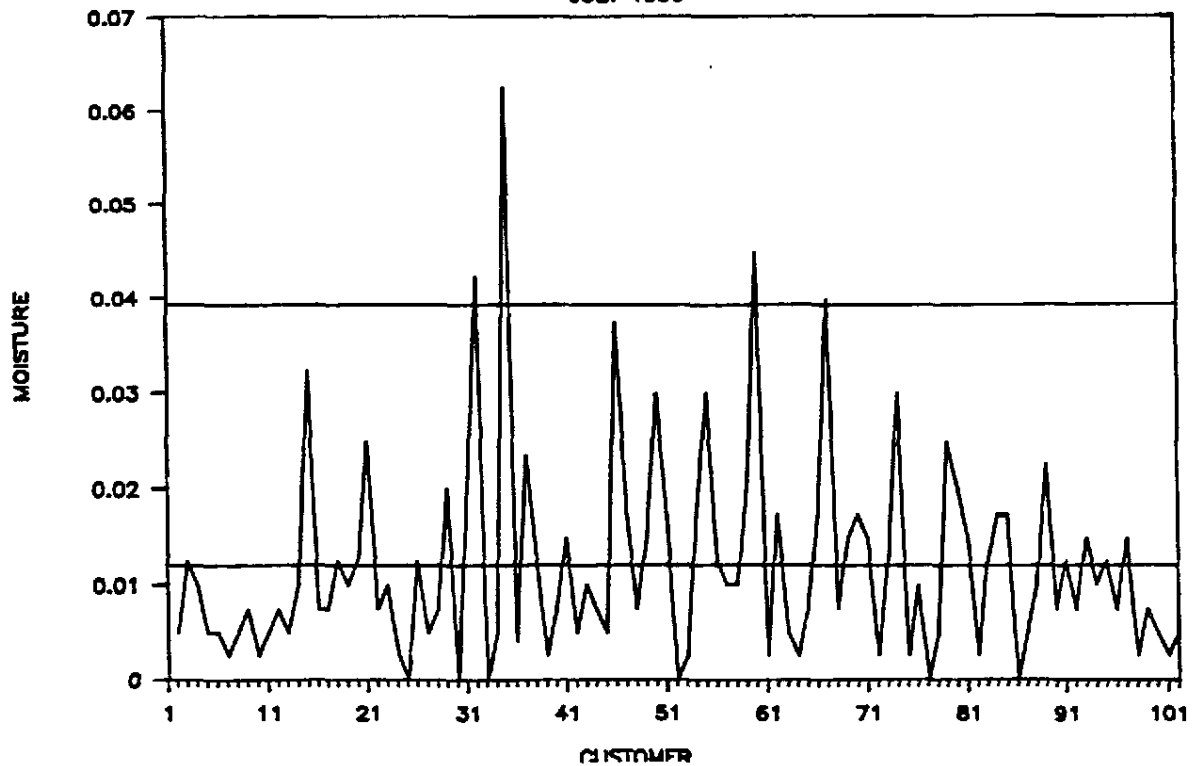
JULY 1990



CCR 000006438

OKC PVC SHIPMENTS (R CHART)

JULY 1990



OKC RC DATA

JULY

1990

TOTAL DATA POINTS= 102.00

CPK =

5.54

DATE LOADED	CAR NUMBER	MOISTURE	MOVING RANGE	CURRENT X BAR	R BAR	UCL X	LCL X	UCL R
1	46400	0.128		0.122	0.012	0.154	0.090	0.039
1	43730	0.123	0.005	0.122	0.012	0.154	0.090	0.039
1	44508	0.110	0.012	0.122	0.012	0.154	0.090	0.039
1	46586	0.120	0.010	0.122	0.012	0.154	0.090	0.039
1	46393	0.125	0.005	0.122	0.012	0.154	0.090	0.039
2	42181	0.120	0.005	0.122	0.012	0.154	0.090	0.039
2	46399	0.123	0.003	0.122	0.012	0.154	0.090	0.039
2	46473	0.118	0.005	0.122	0.012	0.154	0.090	0.039
3	45889	0.125	0.007	0.122	0.012	0.154	0.090	0.039
3	44296	0.123	0.003	0.122	0.012	0.154	0.090	0.039
3	43708	0.128	0.005	0.122	0.012	0.154	0.090	0.039
3	45750	0.135	0.008	0.122	0.012	0.154	0.090	0.039
4	42772	0.130	0.005	0.122	0.012	0.154	0.090	0.039
4	44747	0.140	0.010	0.122	0.012	0.154	0.090	0.039
5	73402	0.108	0.033	0.122	0.012	0.154	0.090	0.039
5	41635	0.115	0.008	0.122	0.012	0.154	0.090	0.039
5	46501	0.123	0.007	0.122	0.012	0.154	0.090	0.039
5	73396	0.110	0.012	0.122	0.012	0.154	0.090	0.039
5	76408	0.120	0.010	0.122	0.012	0.154	0.090	0.039
6	46410	0.108	0.012	0.122	0.012	0.154	0.090	0.039
6	45462	0.133	0.025	0.122	0.012	0.154	0.090	0.039
6	48054	0.125	0.008	0.122	0.012	0.154	0.090	0.039
6	48076	0.115	0.010	0.122	0.012	0.154	0.090	0.039
6	43737	0.113	0.003	0.122	0.012	0.154	0.090	0.039
7	46390	0.113	0.000	0.122	0.012	0.154	0.090	0.039
7	44756	0.125	0.012	0.122	0.012	0.154	0.090	0.039
7	46540	0.120	0.005	0.122	0.012	0.154	0.090	0.039
8	42121	0.128	0.008	0.122	0.012	0.154	0.090	0.039
8	48055	0.108	0.020	0.122	0.012	0.154	0.090	0.039
8	73392	0.108	0.000	0.122	0.012	0.154	0.090	0.039
8	46529	0.128	0.020	0.122	0.012	0.154	0.090	0.039
9	46392	0.085	0.042	0.122	0.012	0.154	0.090	0.039
9	73406	0.095	0.000	0.122	0.012	0.154	0.090	0.039
9	46496	0.080	0.005	0.122	0.012	0.154	0.090	0.039
12	43857	0.143	0.063	0.122	0.012	0.154	0.090	0.039
14	46577	0.139	0.004	0.122	0.012	0.154	0.090	0.039
14	46518	0.115	0.024	0.122	0.012	0.154	0.090	0.039
14	46404	0.128	0.012	0.122	0.012	0.154	0.090	0.039
14	41189	0.130	0.003	0.122	0.012	0.154	0.090	0.039
14	44755	0.123	0.008	0.122	0.012	0.154	0.090	0.039
15	45754	0.108	0.015	0.122	0.012	0.154	0.090	0.039
15	46546	0.103	0.005	0.122	0.012	0.154	0.090	0.039
15	73411	0.093	0.010	0.122	0.012	0.154	0.090	0.039
15	43743	0.085	0.007	0.122	0.012	0.154	0.090	0.039
16	46515	0.080	0.005	0.122	0.012	0.154	0.090	0.039
16	46578	0.118	0.038	0.122	0.012	0.154	0.090	0.039
16	46491	0.180	0.018	0.122	0.012	0.154	0.090	0.039

CCR 000006439

ORC KC DATA JULY 1990

TOTAL DATA POINTS= 102.00

CPE = 6.54

DATE LOADED	CAR NUMBER	MOISTURE	MOVING RANGE	CURRENT X BAR	R BAR	UCL X	LCL X	UCL R
16	73397	0.108	0.007	0.122	0.012	0.154	0.090	0.039
16	42249	0.093	0.015	0.122	0.012	0.154	0.090	0.039
16	46404	0.123	0.030	0.122	0.012	0.154	0.090	0.039
17	73390	0.140	0.018	0.122	0.012	0.154	0.090	0.039
17	73393	0.140	0.000	0.122	0.012	0.154	0.090	0.039
17	73394	0.143	0.003	0.122	0.012	0.154	0.090	0.039
17	73391	0.125	0.016	0.122	0.012	0.154	0.090	0.039
18	44750	0.155	0.030	0.122	0.012	0.154	0.090	0.039
18	46394	0.143	0.012	0.122	0.012	0.154	0.090	0.039
18	73410	0.153	0.010	0.122	0.012	0.154	0.090	0.039
18	73401	0.143	0.010	0.122	0.012	0.154	0.090	0.039
18	43717	0.103	0.020	0.122	0.012	0.154	0.090	0.039
19	45701	0.118	0.045	0.122	0.012	0.154	0.090	0.039
19	41842	0.115	0.003	0.122	0.012	0.154	0.090	0.039
19	73403	0.133	0.016	0.122	0.012	0.154	0.090	0.039
19	52472	0.128	0.005	0.122	0.012	0.154	0.090	0.039
19	46416	0.130	0.003	0.122	0.012	0.154	0.090	0.039
19	73403	0.138	0.008	0.122	0.012	0.154	0.090	0.039
20	43749	0.155	0.017	0.122	0.012	0.154	0.090	0.039
23	41597	0.115	0.040	0.122	0.012	0.154	0.090	0.039
23	46538	0.123	0.007	0.122	0.012	0.154	0.090	0.039
23	45716	0.136	0.015	0.122	0.012	0.154	0.090	0.039
24	43699	0.120	0.018	0.122	0.012	0.154	0.090	0.039
24	46401	0.135	0.015	0.122	0.012	0.154	0.090	0.039
25	46472	0.133	0.003	0.122	0.012	0.154	0.090	0.039
25	46507	0.120	0.012	0.122	0.012	0.154	0.090	0.039
25	46530	0.150	0.030	0.122	0.012	0.154	0.090	0.039
25	41645	0.148	0.002	0.122	0.012	0.154	0.090	0.039
25	44754	0.138	0.010	0.122	0.012	0.154	0.090	0.039
26	46464	0.138	0.000	0.122	0.012	0.154	0.090	0.039
26	46503	0.133	0.005	0.122	0.012	0.154	0.090	0.039
26	46465	0.108	0.025	0.122	0.012	0.154	0.090	0.039
26	42057	0.128	0.020	0.122	0.012	0.154	0.090	0.039
27	46547	0.113	0.015	0.122	0.012	0.154	0.090	0.039
27	46457	0.110	0.003	0.122	0.012	0.154	0.090	0.039
27	46463	0.123	0.013	0.122	0.012	0.154	0.090	0.039
27	41618	0.140	0.018	0.122	0.012	0.154	0.090	0.039
28	42181	0.123	0.018	0.122	0.012	0.154	0.090	0.039
28	48045	0.123	0.000	0.122	0.012	0.154	0.090	0.039
28	41605	0.118	0.005	0.122	0.012	0.154	0.090	0.039
28	46470	0.108	0.010	0.122	0.012	0.154	0.090	0.039
28	48051	0.130	0.023	0.122	0.012	0.154	0.090	0.039
29	46485	0.138	0.008	0.122	0.012	0.154	0.090	0.039
29	48031	0.125	0.013	0.122	0.012	0.154	0.090	0.039
29	48030	0.133	0.008	0.122	0.012	0.154	0.090	0.039
30	41406	0.118	0.015	0.122	0.012	0.154	0.090	0.039
30	46480	0.128	0.010	0.122	0.012	0.154	0.090	0.039

CCR 000006440

ORC RC DATA JULY 1990

TOTAL DATA POINTS= 102.00

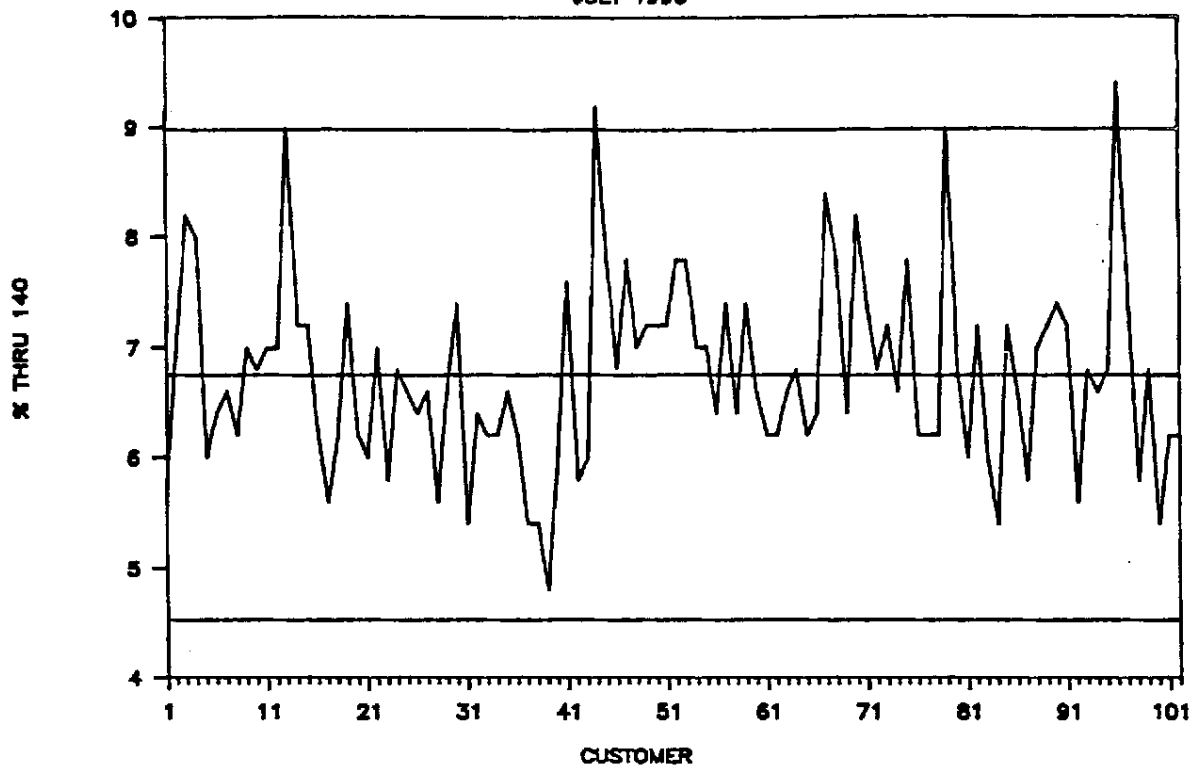
CPK = 5.54

DATE LOADED	CAR NUMBER	MOVING MOISTURE	CURRENT RANGE	X BAR	R BAR	UCL X	LCL X	UCL R
30	46397	0.115	0.012	0.122	0.012	0.154	0.090	0.039
30	46458	0.108	0.008	0.122	0.012	0.154	0.090	0.039
30	46514	0.123	0.015	0.122	0.012	0.154	0.090	0.039
31	46533	0.120	0.003	0.122	0.012	0.154	0.090	0.039
31	46544	0.113	0.007	0.122	0.012	0.154	0.090	0.039
31	46581	0.118	0.005	0.122	0.012	0.154	0.090	0.039
31	46551	0.120	0.003	0.122	0.012	0.154	0.090	0.039
31	46471	0.125	0.005	0.122	0.012	0.154	0.090	0.039

CCR 000006441

OKC PVC SHIPMENTS (X CHART)

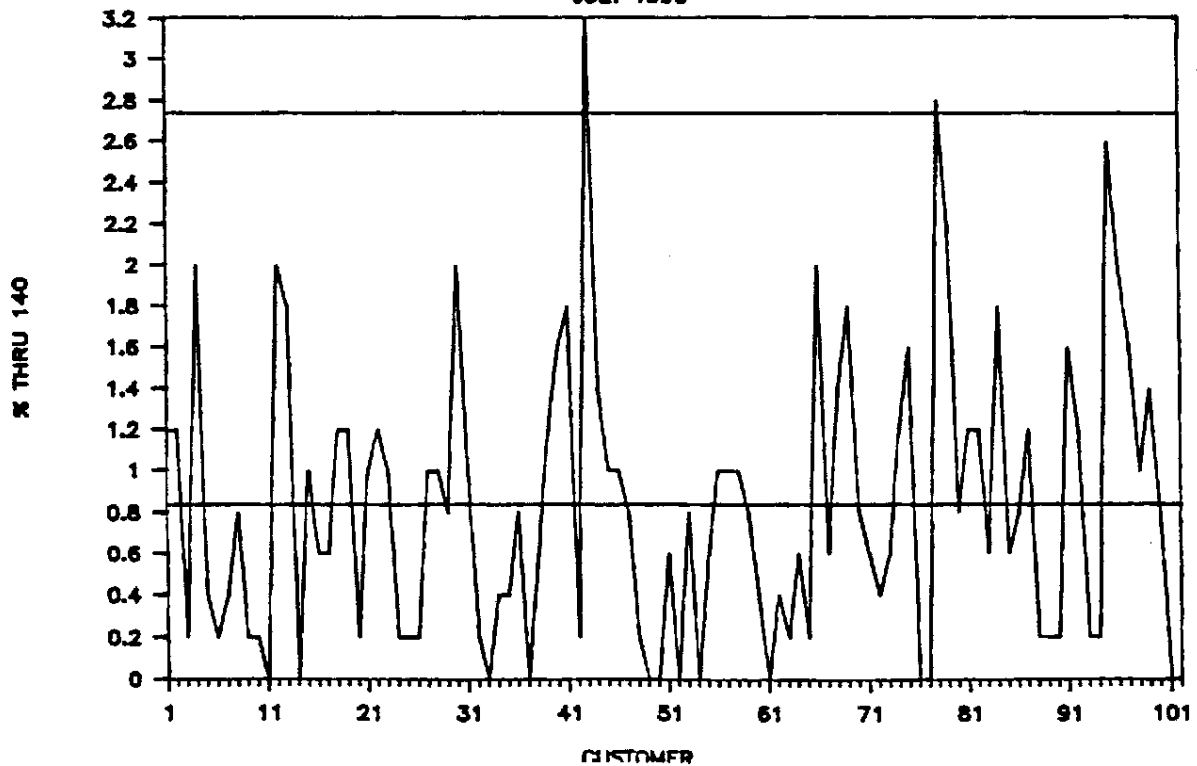
JULY 1990



CCR 000006442

OKC PVC SHIPMENTS (R CHART)

JULY 1990



OKC RC DATA JULY 1990

TOTAL DATA POINTS: 102.00

CPI = 5.93

DATE LOADED	CAR NUMBER	X THRU 140	MOVING RANGE	CURRENT X BAR	R BAR	UCL X	LCL X	UCL R
1	46400	5.80		6.76	0.84	8.99	4.52	2.74
1	43730	7.00	1.20	6.76	0.84	8.99	4.52	2.74
1	46508	8.20	1.20	6.76	0.84	8.99	4.52	2.74
1	46586	8.00	0.20	6.76	0.84	8.99	4.52	2.74
1	46393	6.00	2.00	6.76	0.84	8.99	4.52	2.74
2	42181	6.40	0.40	6.76	0.84	8.99	4.52	2.74
2	46399	6.60	0.20	6.76	0.84	8.99	4.52	2.74
2	46473	6.20	0.40	6.76	0.84	8.99	4.52	2.74
3	45889	7.80	0.00	6.76	0.84	8.99	4.52	2.74
3	44296	6.80	0.20	6.76	0.84	8.99	4.52	2.74
3	43708	7.00	0.20	6.76	0.84	8.99	4.52	2.74
3	45750	7.00	0.00	6.76	0.84	8.99	4.52	2.74
4	42172	9.00	2.00	6.76	0.84	8.99	4.52	2.74
4	44747	7.20	1.80	6.76	0.84	8.99	4.52	2.74
5	73402	7.20	0.00	6.76	0.84	8.99	4.52	2.74
5	41635	6.20	1.00	6.76	0.84	8.99	4.52	2.74
5	46501	5.60	0.60	6.76	0.84	8.99	4.52	2.74
5	73396	6.20	0.60	6.76	0.84	8.99	4.52	2.74
5	76408	7.40	1.20	6.76	0.84	8.99	4.52	2.74
6	46410	6.20	1.20	6.76	0.84	8.99	4.52	2.74
6	46462	6.00	0.20	6.76	0.84	8.99	4.52	2.74
6	48054	7.00	1.00	6.76	0.84	8.99	4.52	2.74
6	48076	5.80	1.20	6.76	0.84	8.99	4.52	2.74
6	43737	6.80	1.00	6.76	0.84	8.99	4.52	2.74
7	46390	6.60	0.20	6.76	0.84	8.99	4.52	2.74
7	44756	6.40	0.20	6.76	0.84	8.99	4.52	2.74
7	46540	6.60	0.20	6.76	0.84	8.99	4.52	2.74
8	42121	5.60	1.00	6.76	0.84	8.99	4.52	2.74
8	48055	6.60	1.00	6.76	0.84	8.99	4.52	2.74
8	73392	7.40	0.80	6.76	0.84	8.99	4.52	2.74
8	46529	5.40	2.00	6.76	0.84	8.99	4.52	2.74
9	46392	6.40	1.80	6.76	0.84	8.99	4.52	2.74
9	73406	6.20	0.20	6.76	0.84	8.99	4.52	2.74
9	46498	6.20	0.00	6.76	0.84	8.99	4.52	2.74
12	43857	6.60	0.40	6.76	0.84	8.99	4.52	2.74
14	46577	6.20	0.40	6.76	0.84	8.99	4.52	2.74
14	46518	5.40	0.80	6.76	0.84	8.99	4.52	2.74
14	46404	5.40	0.00	6.76	0.84	8.99	4.52	2.74
14	41189	4.80	0.60	6.76	0.84	8.99	4.52	2.74
14	44755	6.00	1.20	6.76	0.84	8.99	4.52	2.74
15	45754	7.60	1.60	6.76	0.84	8.99	4.52	2.74
15	46546	5.80	1.80	6.76	0.84	8.99	4.52	2.74
15	73411	6.00	0.20	6.76	0.84	8.99	4.52	2.74
15	43743	9.20	3.20	6.76	0.84	8.99	4.52	2.74
16	46515	7.80	1.40	6.76	0.84	8.99	4.52	2.74
16	46578	6.80	1.00	6.76	0.84	8.99	4.52	2.74
16	46491	7.80	1.00	6.76	0.84	8.99	4.52	2.74

CCR 000006443

ORC RC DATA JULY 1990

TOTAL DATA POINTS= 102.00

CPI = 5.03

DATE LOADED	CAR NUMBER	% THRU 140	MOVING RANGE	CURRENT X BAR	R BAR	UCL X	LCL X	UCL R
16	73397	7.00	0.00	6.76	0.84	8.99	4.52	2.74
16	42249	7.20	0.20	6.76	0.84	8.99	4.52	2.74
16	46484	7.20	0.00	6.76	0.84	8.99	4.52	2.74
17	73390	7.20	0.00	6.76	0.84	8.99	4.52	2.74
17	73393	7.80	0.60	6.76	0.84	8.99	4.52	2.74
17	73394	7.80	0.00	6.76	0.84	8.99	4.52	2.74
17	73391	7.00	0.80	6.76	0.84	8.99	4.52	2.74
18	44750	7.00	0.00	6.76	0.84	8.99	4.52	2.74
18	46394	6.40	0.60	6.76	0.84	8.99	4.52	2.74
18	73410	7.40	1.00	6.76	0.84	8.99	4.52	2.74
18	73401	6.40	1.00	6.76	0.84	8.99	4.52	2.74
18	43717	7.40	1.00	6.76	0.84	8.99	4.52	2.74
18	45701	6.60	0.00	6.76	0.84	8.99	4.52	2.74
19	41842	6.20	0.40	6.76	0.84	8.99	4.52	2.74
19	73403	6.20	0.00	6.76	0.84	8.99	4.52	2.74
19	52472	6.60	0.40	6.76	0.84	8.99	4.52	2.74
19	46476	6.80	0.20	6.76	0.84	8.99	4.52	2.74
19	73403	6.20	0.60	6.76	0.84	8.99	4.52	2.74
20	43749	6.40	0.20	6.76	0.84	8.99	4.52	2.74
23	41597	6.40	2.00	6.76	0.84	8.99	4.52	2.74
23	46538	7.80	0.60	6.76	0.84	8.99	4.52	2.74
23	45716	6.40	1.40	6.76	0.84	8.99	4.52	2.74
24	43699	8.20	1.80	6.76	0.84	8.99	4.52	2.74
24	46401	7.40	0.80	6.76	0.84	8.99	4.52	2.74
25	46472	6.80	0.60	6.76	0.84	8.99	4.52	2.74
25	46507	7.20	0.40	6.76	0.84	8.99	4.52	2.74
25	46530	6.60	0.60	6.76	0.84	8.99	4.52	2.74
25	41645	7.80	1.20	6.76	0.84	8.99	4.52	2.74
25	44754	6.20	1.60	6.76	0.84	8.99	4.52	2.74
26	46484	6.20	0.00	6.76	0.84	8.99	4.52	2.74
26	46503	6.20	0.00	6.76	0.84	8.99	4.52	2.74
26	46465	9.00	2.80	6.76	0.84	8.99	4.52	2.74
26	42057	6.80	2.20	6.76	0.84	8.99	4.52	2.74
27	46547	6.00	0.80	6.76	0.84	8.99	4.52	2.74
27	46457	7.20	1.20	6.76	0.84	8.99	4.52	2.74
27	46463	6.00	1.20	6.76	0.84	8.99	4.52	2.74
27	47618	5.40	0.60	6.76	0.84	8.99	4.52	2.74
28	42181	7.20	1.80	6.76	0.84	8.99	4.52	2.74
28	48045	6.60	0.60	6.76	0.84	8.99	4.52	2.74
28	41605	5.80	0.80	6.76	0.84	8.99	4.52	2.74
28	46470	7.00	1.20	6.76	0.84	8.99	4.52	2.74
28	48051	7.20	0.20	6.76	0.84	8.99	4.52	2.74
29	46485	7.40	0.20	6.76	0.84	8.99	4.52	2.74
29	48031	7.20	0.20	6.76	0.84	8.99	4.52	2.74
29	48030	5.60	1.60	6.76	0.84	8.99	4.52	2.74
30	41406	6.80	1.20	6.76	0.84	8.99	4.52	2.74
40	46480	6.60	0.20	6.76	0.84	8.99	4.52	2.74

CCR 000006444

 ORC RC DATA JULY 1990 TOTAL DATA POINTS= 102.00

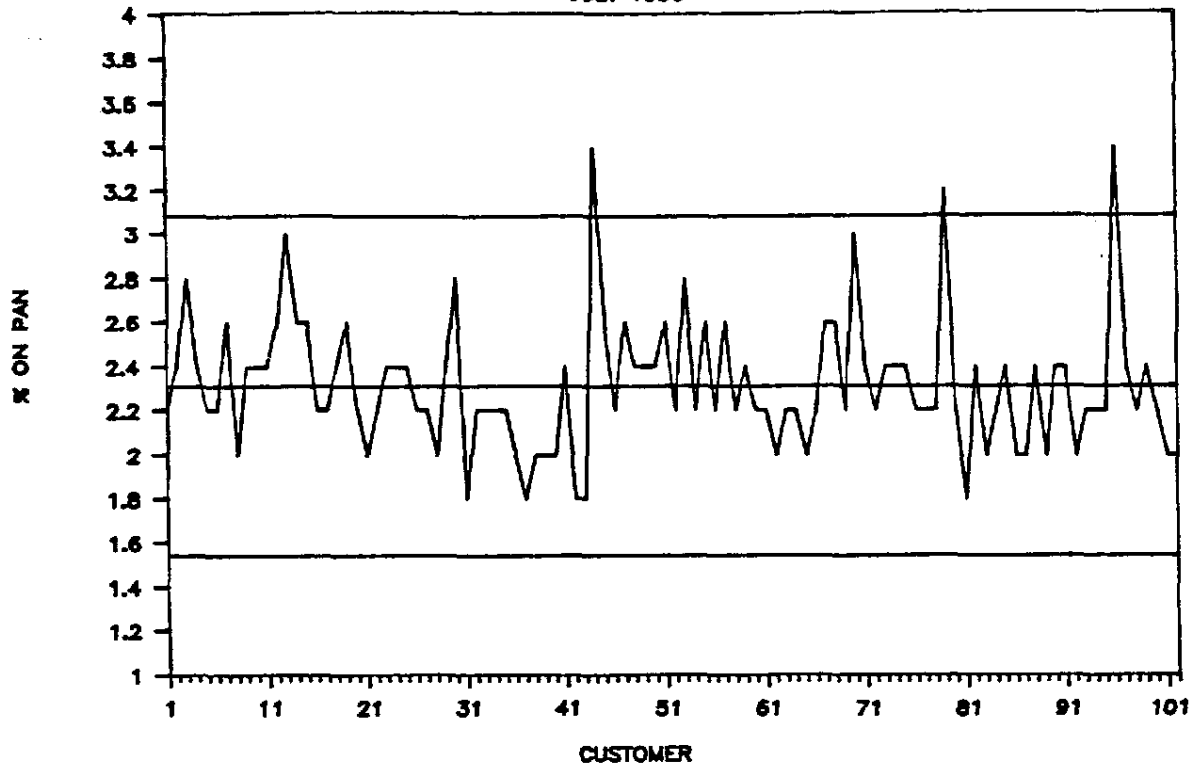
CPK = 5.93

DATE LOADED	CAR NUMBER	X THRU 140	MOVING RANGE	CURRENT X BAR	R BAR	UCL X	LCL X	UCL R
30	46397	6.80	0.20	6.76	0.84	8.99	4.52	2.74
30	46458	9.40	2.60	6.76	0.84	8.99	4.52	2.74
30	46514	7.40	2.00	6.76	0.84	8.99	4.52	2.74
31	46533	5.80	1.60	6.76	0.84	8.99	4.52	2.74
31	46544	6.80	1.00	6.76	0.84	8.99	4.52	2.74
31	46581	5.40	1.40	6.76	0.84	8.99	4.52	2.74
31	46551	6.20	0.80	6.76	0.84	8.99	4.52	2.74
31	46471	6.20	0.80	6.76	0.84	8.99	4.52	2.74

CCR 000006445

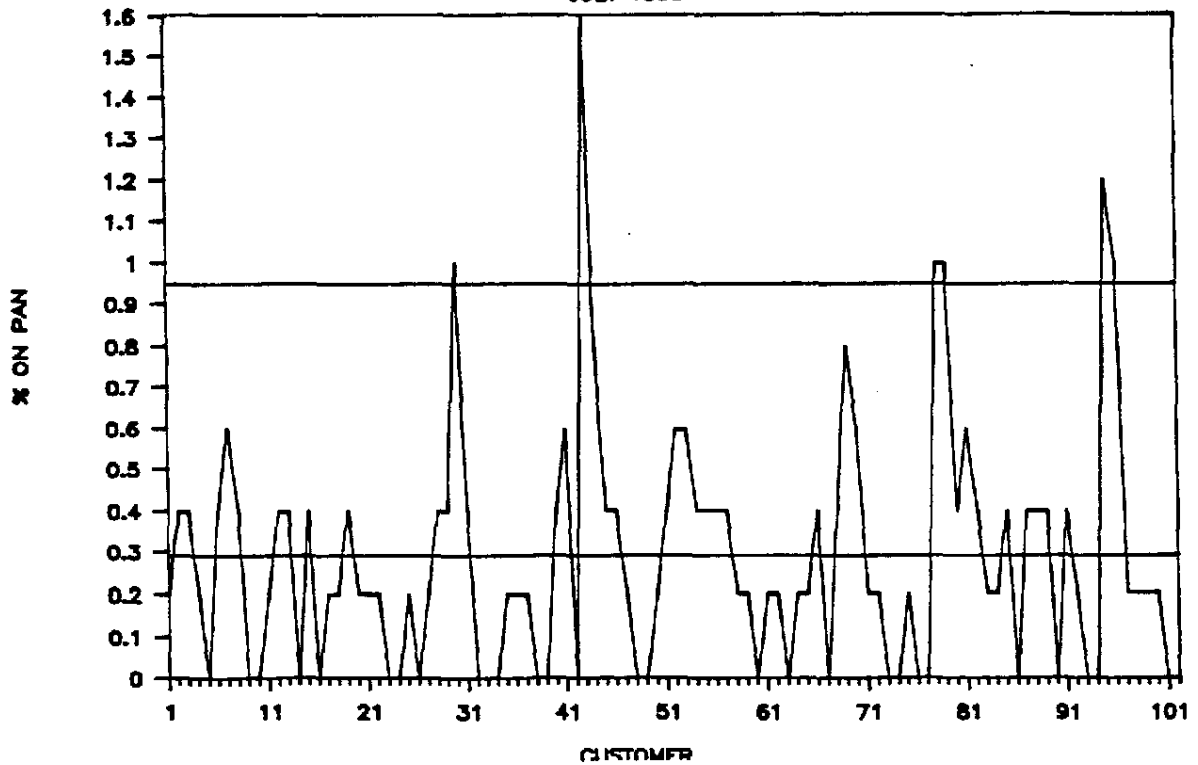
OKC PVC SHIPMENTS (X CHART)

JULY 1990



OKC PVC SHIPMENTS (R CHART)

JULY 1990



CCR 000006446

OKC RC DATA JULY 1990

TOTAL DATA POINTS= 102.00

CPI = 3.47

DATE LOADED	CAR NUMBER	% ON PAR	CURRENT RANGE	X BAR	R BAR	UCL X	LCL X	UCL R
1	46400	2.2		2.31	0.29	3.09	1.54	0.95
1	43730	2.4	0.20	2.31	0.29	3.09	1.54	0.95
1	46508	2.8	0.40	2.31	0.29	3.09	1.54	0.95
1	46586	2.4	0.40	2.31	0.29	3.09	1.54	0.95
1	46393	2.2	0.20	2.31	0.29	3.09	1.54	0.95
2	42181	2.2	0.00	2.31	0.29	3.09	1.54	0.95
2	46399	2.6	0.40	2.31	0.29	3.09	1.54	0.95
2	46473	2.0	0.60	2.31	0.29	3.09	1.54	0.95
3	45889	2.4	0.40	2.31	0.29	3.09	1.54	0.95
3	44296	2.4	0.00	2.31	0.29	3.09	1.54	0.95
3	43708	2.4	0.00	2.31	0.29	3.09	1.54	0.95
3	45750	2.6	0.20	2.31	0.29	3.09	1.54	0.95
4	42172	3.0	0.40	2.31	0.29	3.09	1.54	0.95
4	44747	2.6	0.40	2.31	0.29	3.09	1.54	0.95
5	73402	2.8	0.00	2.31	0.29	3.09	1.54	0.95
5	41635	2.2	0.40	2.31	0.29	3.09	1.54	0.95
5	46501	2.2	0.00	2.31	0.29	3.09	1.54	0.95
5	73396	2.4	0.20	2.31	0.29	3.09	1.54	0.95
5	76408	2.6	0.20	2.31	0.29	3.09	1.54	0.95
6	46410	2.2	0.40	2.31	0.29	3.09	1.54	0.95
6	46462	2.0	0.20	2.31	0.29	3.09	1.54	0.95
6	48054	2.2	0.20	2.31	0.29	3.09	1.54	0.95
6	48076	2.4	0.20	2.31	0.29	3.09	1.54	0.95
6	43737	2.4	0.00	2.31	0.29	3.09	1.54	0.95
7	46390	2.4	0.00	2.31	0.29	3.09	1.54	0.95
7	44756	2.2	0.20	2.31	0.29	3.09	1.54	0.95
7	46540	2.2	0.00	2.31	0.29	3.09	1.54	0.95
8	42121	2.0	0.20	2.31	0.29	3.09	1.54	0.95
8	48055	2.4	0.40	2.31	0.29	3.09	1.54	0.95
8	73392	2.8	0.40	2.31	0.29	3.09	1.54	0.95
8	46529	1.8	1.00	2.31	0.29	3.09	1.54	0.95
9	46392	2.2	0.40	2.31	0.29	3.09	1.54	0.95
9	73406	2.2	0.00	2.31	0.29	3.09	1.54	0.95
9	46498	2.2	0.00	2.31	0.29	3.09	1.54	0.95
12	43857	2.2	0.00	2.31	0.29	3.09	1.54	0.95
14	46577	2.0	0.20	2.31	0.29	3.09	1.54	0.95
14	46518	1.8	0.20	2.31	0.29	3.09	1.54	0.95
14	46404	2.0	0.20	2.31	0.29	3.09	1.54	0.95
14	41189	2.0	0.00	2.31	0.29	3.09	1.54	0.95
14	44755	2.0	0.00	2.31	0.29	3.09	1.54	0.95
15	45754	2.4	0.40	2.31	0.29	3.09	1.54	0.95
15	46546	1.8	0.60	2.31	0.29	3.09	1.54	0.95
15	73411	1.8	0.00	2.31	0.29	3.09	1.54	0.95
15	43743	3.4	1.60	2.31	0.29	3.09	1.54	0.95
16	46515	2.6	0.80	2.31	0.29	3.09	1.54	0.95
16	46578	2.2	0.40	2.31	0.29	3.09	1.54	0.95
16	46491	2.6	0.40	2.31	0.29	3.09	1.54	0.95

CCR 000006447

OKC RC DATA JULY 1990

TOTAL DATA POINTS= 102.00

CPI = 3.47

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DATE LOADED	CAR NUMBER	X ON PAN	CURRENT RANGE	X BAR	R BAR	UCL X	LCL X	UCL R
16	73397	2.4	0.20	2.31	0.29	3.09	1.54	0.95
16	42249	2.4	0.00	2.31	0.29	3.09	1.54	0.95
16	46484	2.4	0.00	2.31	0.29	3.09	1.54	0.95
17	73390	2.6	0.20	2.31	0.29	3.09	1.54	0.95
17	73393	2.2	0.40	2.31	0.29	3.09	1.54	0.95
17	73394	2.0	0.60	2.31	0.29	3.09	1.54	0.95
17	73391	2.2	0.60	2.31	0.29	3.09	1.54	0.95
18	44750	2.6	0.40	2.31	0.29	3.09	1.54	0.95
18	46394	2.2	0.40	2.31	0.29	3.09	1.54	0.95
18	73410	2.6	0.40	2.31	0.29	3.09	1.54	0.95
18	73401	2.2	0.40	2.31	0.29	3.09	1.54	0.95
18	43717	2.4	0.20	2.31	0.29	3.09	1.54	0.95
19	45701	2.2	0.20	2.31	0.29	3.09	1.54	0.95
19	41842	2.2	0.00	2.31	0.29	3.09	1.54	0.95
19	73403	2.0	0.20	2.31	0.29	3.09	1.54	0.95
19	52472	2.2	0.20	2.31	0.29	3.09	1.54	0.95
19	46476	2.2	0.00	2.31	0.29	3.09	1.54	0.95
19	73403	2.0	0.20	2.31	0.29	3.09	1.54	0.95
20	43749	2.2	0.20	2.31	0.29	3.09	1.54	0.95
23	41597	2.6	0.40	2.31	0.29	3.09	1.54	0.95
23	46538	2.6	0.00	2.31	0.29	3.09	1.54	0.95
23	45716	2.2	0.40	2.31	0.29	3.09	1.54	0.95
24	43699	3.0	0.80	2.31	0.29	3.09	1.54	0.95
24	46401	2.4	0.60	2.31	0.29	3.09	1.54	0.95
25	46472	2.2	0.20	2.31	0.29	3.09	1.54	0.95
25	46507	2.4	0.20	2.31	0.29	3.09	1.54	0.95
25	46530	2.4	0.00	2.31	0.29	3.09	1.54	0.95
25	41645	2.4	0.00	2.31	0.29	3.09	1.54	0.95
25	44754	2.2	0.20	2.31	0.29	3.09	1.54	0.95
26	46464	2.2	0.00	2.31	0.29	3.09	1.54	0.95
26	46503	2.2	0.00	2.31	0.29	3.09	1.54	0.95
26	46465	3.2	1.00	2.31	0.29	3.09	1.54	0.95
26	42057	2.2	1.00	2.31	0.29	3.09	1.54	0.95
27	46547	1.8	0.40	2.31	0.29	3.09	1.54	0.95
27	46457	2.4	0.60	2.31	0.29	3.09	1.54	0.95
27	46463	2.0	0.40	2.31	0.29	3.09	1.54	0.95
27	41618	2.2	0.20	2.31	0.29	3.09	1.54	0.95
28	42181	2.4	0.20	2.31	0.29	3.09	1.54	0.95
28	48045	2.0	0.40	2.31	0.29	3.09	1.54	0.95
28	41605	2.0	0.00	2.31	0.29	3.09	1.54	0.95
28	46470	2.4	0.40	2.31	0.29	3.09	1.54	0.95
28	48051	2.0	0.40	2.31	0.29	3.09	1.54	0.95
29	46485	2.4	0.40	2.31	0.29	3.09	1.54	0.95
29	48031	2.4	0.00	2.31	0.29	3.09	1.54	0.95
29	48030	2.0	0.40	2.31	0.29	3.09	1.54	0.95
30	41406	2.2	0.20	2.31	0.29	3.09	1.54	0.95
30	46480	2.2	0.00	2.31	0.29	3.09	1.54	0.95

CCR 000006448

OKC RC DATA JULY 1990

TOTAL DATA POINTS= 102.00

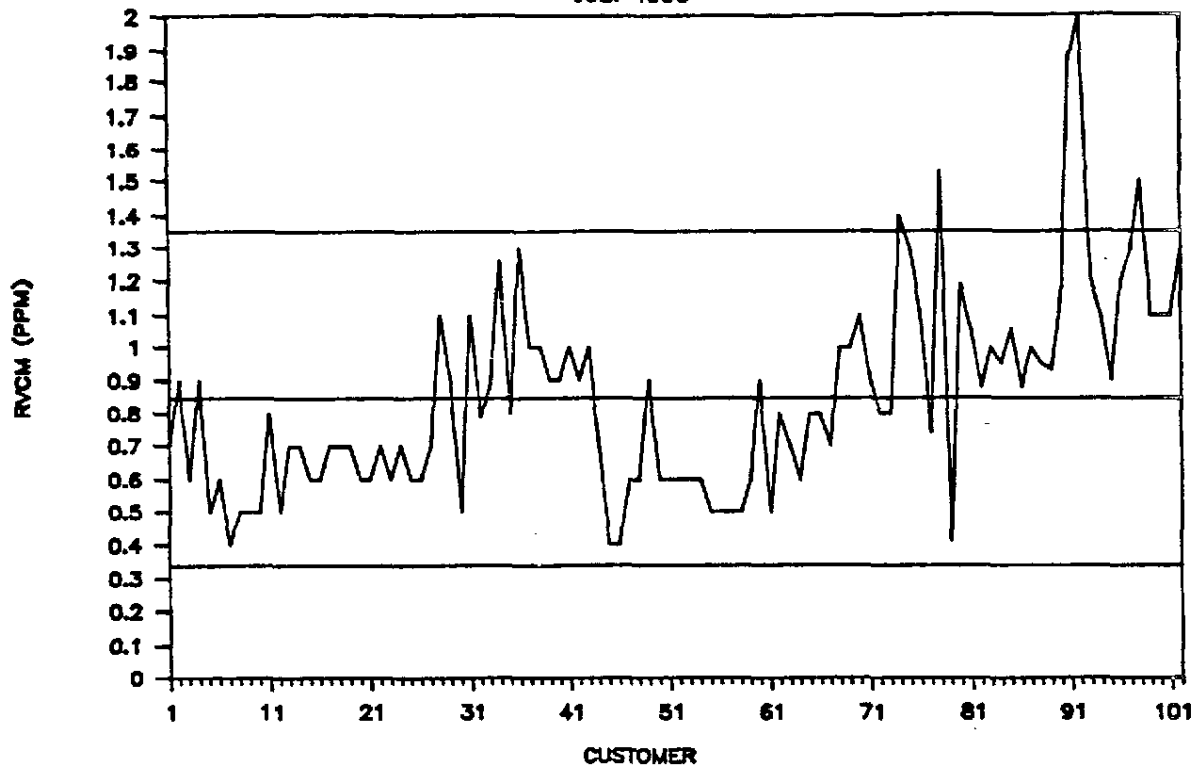
CPK = 3.47

DATE LOADED	CAR NUMBER	% ON PAN	CURRENT RANGE	X BAR	R BAR	UCL X	LCL X	UCL R
30	46397	2.2	0.00	2.31	0.29	3.09	1.54	0.95
30	46450	3.4	1.20	2.31	0.29	3.09	1.54	0.95
30	46514	2.4	1.00	2.31	0.29	3.09	1.54	0.95
31	46533	2.2	0.20	2.31	0.29	3.09	1.54	0.95
31	46544	2.4	0.20	2.31	0.29	3.09	1.54	0.95
31	46581	2.2	0.20	2.31	0.29	3.09	1.54	0.95
31	46551	2.0	0.20	2.31	0.29	3.09	1.54	0.95
31	46471	2.0	0.00	2.31	0.29	3.09	1.54	0.95

CCR 000006449

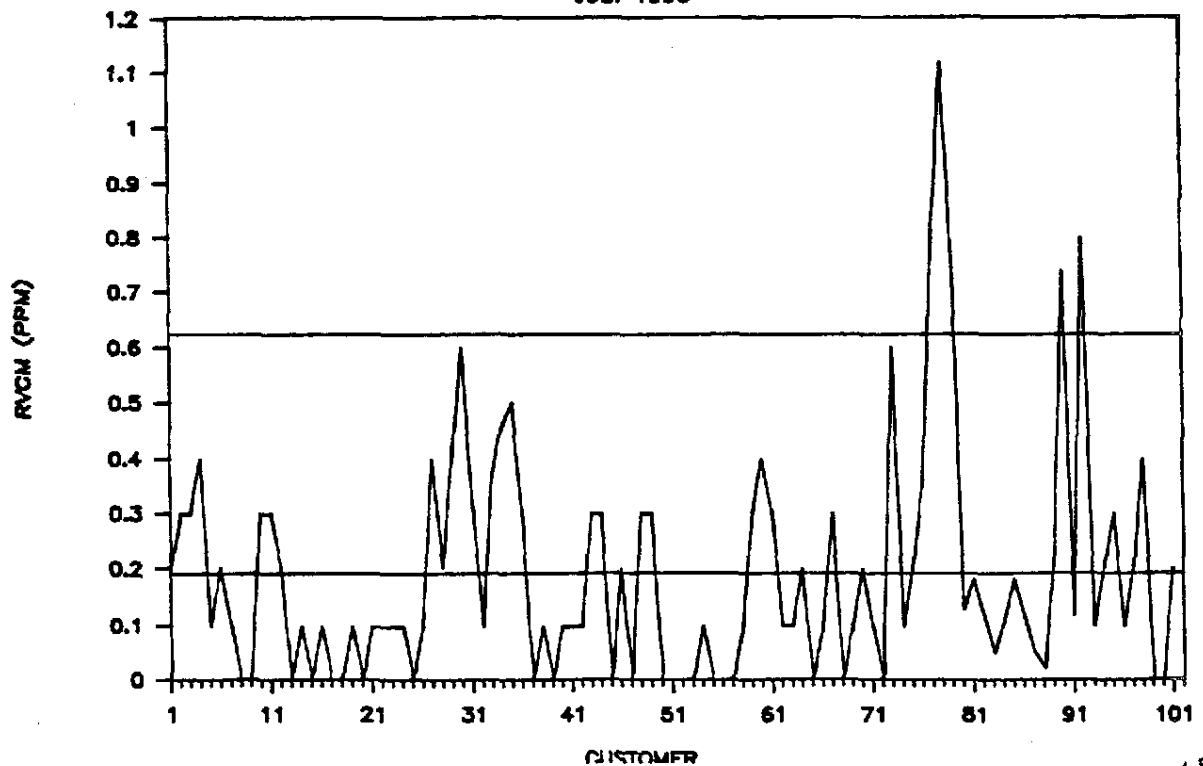
OKC PVC SHIPMENTS (X CHART)

JULY 1990



OKC PVC SHIPMENTS (R CHART)

JULY 1990



CCR 000006450

OKC RC DATA

JULY 1990

TOTAL DATA POINTS= 102.00

CPI = 2.27

DATE LOADED	CAR NUMBER	RYCM	RANGE	CURRENT			UCL X	LCL X	UCL R
				X BAR	R BAR				
1	46400	0.70		0.85	0.19	1.36	0.34	0.62	
1	43730	0.90	0.20	0.85	0.19	1.36	0.34	0.62	
1	46508	0.80	0.30	0.85	0.19	1.36	0.34	0.62	
1	46586	0.90	0.30	0.85	0.19	1.36	0.34	0.62	
1	46393	0.50	0.40	0.85	0.19	1.36	0.34	0.62	
2	42181	0.60	0.10	0.85	0.19	1.36	0.34	0.62	
2	46399	0.40	0.20	0.85	0.19	1.36	0.34	0.62	
2	46473	0.50	0.10	0.85	0.19	1.36	0.34	0.62	
3	45889	0.50	0.00	0.85	0.19	1.36	0.34	0.62	
3	44296	0.50	0.00	0.85	0.19	1.36	0.34	0.62	
3	43708	0.80	0.30	0.85	0.19	1.36	0.34	0.62	
3	45750	0.50	0.30	0.85	0.19	1.36	0.34	0.62	
4	42172	0.70	0.20	0.85	0.19	1.36	0.34	0.62	
4	44747	0.70	0.00	0.85	0.19	1.36	0.34	0.62	
5	73402	0.60	0.10	0.85	0.19	1.36	0.34	0.62	
5	41835	0.60	0.00	0.85	0.19	1.36	0.34	0.62	
5	46501	0.70	0.10	0.85	0.19	1.36	0.34	0.62	
5	73396	0.70	0.00	0.85	0.19	1.36	0.34	0.62	
5	76408	0.70	0.00	0.85	0.19	1.36	0.34	0.62	
6	46410	0.60	0.10	0.85	0.19	1.36	0.34	0.62	
6	46462	0.60	0.00	0.85	0.19	1.36	0.34	0.62	
6	48854	0.70	0.10	0.85	0.19	1.36	0.34	0.62	
6	48076	0.60	0.10	0.85	0.19	1.36	0.34	0.62	
6	43737	0.70	0.10	0.85	0.19	1.36	0.34	0.62	
7	46390	0.60	0.10	0.85	0.19	1.36	0.34	0.62	
7	44756	0.60	0.00	0.85	0.19	1.36	0.34	0.62	
7	46540	0.70	0.10	0.85	0.19	1.36	0.34	0.62	
8	42121	1.10	0.40	0.85	0.19	1.36	0.34	0.62	
8	48055	0.90	0.20	0.85	0.19	1.36	0.34	0.62	
8	73392	0.50	0.40	0.85	0.19	1.36	0.34	0.62	
8	46529	1.10	0.60	0.85	0.19	1.36	0.34	0.62	
9	46392	0.79	0.31	0.85	0.19	1.36	0.34	0.62	
9	73406	0.89	0.10	0.85	0.19	1.36	0.34	0.62	
9	46498	1.26	0.37	0.85	0.19	1.36	0.34	0.62	
12	43857	0.80	0.46	0.85	0.19	1.36	0.34	0.62	
14	46577	1.30	0.50	0.85	0.19	1.36	0.34	0.62	
14	46518	1.00	0.30	0.85	0.19	1.36	0.34	0.62	
14	46404	1.00	0.00	0.85	0.19	1.36	0.34	0.62	
14	41189	0.90	0.10	0.85	0.19	1.36	0.34	0.62	
14	44755	0.90	0.00	0.85	0.19	1.36	0.34	0.62	
15	45154	1.00	0.10	0.85	0.19	1.36	0.34	0.62	
15	46546	0.90	0.10	0.85	0.19	1.36	0.34	0.62	
15	73411	1.00	0.10	0.85	0.19	1.36	0.34	0.62	
15	43743	0.70	0.30	0.85	0.19	1.36	0.34	0.62	
16	46515	0.40	0.30	0.85	0.19	1.36	0.34	0.62	
16	46518	0.40	0.00	0.85	0.19	1.36	0.34	0.62	
16	46491	0.60	0.20	0.85	0.19	1.36	0.34	0.62	

CCR 000006451

OKC RC DATA JULY 1990

TOTAL DATA POINTS= 102.00

Cpk = 2.27

DATE	CAR	CURRENT						
LOADED	NUMBER	RVCN	RANGE	X BAR	R BAR	UCL X	LCL X	UCL R
16	73397	0.60	0.00	0.85	0.19	1.36	0.34	0.62
16	42249	0.90	0.30	0.85	0.19	1.36	0.34	0.62
16	44484	0.60	0.30	0.85	0.19	1.36	0.34	0.62
17	73390	0.60	0.00	0.85	0.19	1.36	0.34	0.62
17	73393	0.60	0.00	0.85	0.19	1.36	0.34	0.62
17	73394	0.60	0.00	0.85	0.19	1.36	0.34	0.62
17	73391	0.60	0.00	0.85	0.19	1.36	0.34	0.62
18	44750	0.50	0.10	0.85	0.19	1.36	0.34	0.62
18	46394	0.50	0.00	0.85	0.19	1.36	0.34	0.62
18	73410	0.50	0.00	0.85	0.19	1.36	0.34	0.62
18	73407	0.50	0.00	0.85	0.19	1.36	0.34	0.62
18	43717	0.60	0.10	0.85	0.19	1.36	0.34	0.62
19	45701	0.90	0.30	0.85	0.19	1.36	0.34	0.62
19	41842	0.50	0.40	0.85	0.19	1.36	0.34	0.62
19	73403	0.80	0.30	0.85	0.19	1.36	0.34	0.62
19	52472	0.70	0.10	0.85	0.19	1.36	0.34	0.62
19	46476	0.60	0.10	0.85	0.19	1.36	0.34	0.62
19	73403	0.80	0.20	0.85	0.19	1.36	0.34	0.62
20	43749	0.80	0.00	0.85	0.19	1.36	0.34	0.62
23	41597	0.70	0.10	0.85	0.19	1.36	0.34	0.62
23	46538	1.00	0.30	0.85	0.19	1.36	0.34	0.62
23	45716	1.00	0.00	0.85	0.19	1.36	0.34	0.62
24	43699	1.10	0.10	0.85	0.19	1.36	0.34	0.62
24	46401	0.90	0.20	0.85	0.19	1.36	0.34	0.62
25	46472	0.80	0.10	0.85	0.19	1.36	0.34	0.62
25	46507	0.80	0.00	0.85	0.19	1.36	0.34	0.62
25	46530	1.40	0.60	0.85	0.19	1.36	0.34	0.62
25	41645	1.30	0.10	0.85	0.19	1.36	0.34	0.62
25	44754	1.10	0.20	0.85	0.19	1.36	0.34	0.62
26	46464	0.74	0.36	0.85	0.19	1.36	0.34	0.62
26	46503	1.53	0.79	0.85	0.19	1.36	0.34	0.62
26	46465	0.41	1.12	0.85	0.19	1.36	0.34	0.62
26	42057	1.19	0.78	0.85	0.19	1.36	0.34	0.62
27	46547	1.06	0.13	0.85	0.19	1.36	0.34	0.62
27	46457	0.88	0.18	0.85	0.19	1.36	0.34	0.62
27	46463	1.00	0.12	0.85	0.19	1.36	0.34	0.62
27	41618	0.95	0.05	0.85	0.19	1.36	0.34	0.62
28	42181	1.06	0.11	0.85	0.19	1.36	0.34	0.62
28	48045	0.88	0.18	0.85	0.19	1.36	0.34	0.62
28	41605	1.00	0.12	0.85	0.19	1.36	0.34	0.62
28	46470	0.95	0.05	0.85	0.19	1.36	0.34	0.62
28	48051	0.93	0.02	0.85	0.19	1.36	0.34	0.62
29	46485	1.14	0.21	0.85	0.19	1.36	0.34	0.62
29	48031	1.88	0.74	0.85	0.19	1.36	0.34	0.62
29	48030	2.00	0.12	0.85	0.19	1.36	0.34	0.62
30	41406	1.20	0.80	0.85	0.19	1.36	0.34	0.62
30	46480	1.10	0.10	0.85	0.19	1.36	0.34	0.62

CCR 000006452

OKC RC DATA JULY 1990

TOTAL DATA POINTS= 102.00

CPI = 2.27

DATE LOADED	CAR NUMBER	RVCH	RANGE	X BAR	R BAR	UCL X	LCL X	UCL R
30	46397	0.90	0.20	0.85	0.19	1.36	0.34	0.62
30	46458	1.20	0.30	0.85	0.19	1.36	0.34	0.62
30	46514	1.30	0.10	0.85	0.19	1.36	0.34	0.62
31	46533	1.50	0.20	0.85	0.19	1.36	0.34	0.62
31	46544	1.10	0.40	0.85	0.19	1.36	0.34	0.62
31	46581	1.10	0.00	0.85	0.19	1.36	0.34	0.62
31	46551	1.10	0.00	0.85	0.19	1.36	0.34	0.62
31	46471	1.30	0.20	0.85	0.19	1.36	0.34	0.62

CCR 000006453