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ALPHA REVIEW

2-21-86

- OBJECTIVE
- MARKET STATUS AND FORECAST
- ORGANIZATION
- THE PLAN AND TIMETABLE
- POSITIONING/CORPORATE RESPONSIBILITY
- BIOLOGICAL/CHEMICAL CHARACTERIZATION
- STATUS
  - PRODUCT
  - OPERATIONS
  - PURCHASING
  - MARKETING
  - SCIENTIFIC AFFAIRS
  - REGULATORY/LEGAL
- SUPPORT
  - EXECUTIVE MANAGEMENT
  - PROJECT PERSONNEL
- OPPORTUNITY/COST
- SECURITY
- PROTECTION
- SECOND GENERATION PRODUCT
  - OBJECTIVE
  - ORGANIZATION AND REPORTING
  - PRIORITIES
  - ACCOUNTABILITIES
  - TIMETABLE

TIMETABLE - ALPHA II

NEXT STEPS	TIMING
• ESTABLISH STRATEGIC DIRECTION	COMPLETE
• COMPLETE INITIAL IDEATION PROCESS	1/86
• WEIGH ALTERNATIVES, DEVELOP SPECIFIC DIRECTION, ASSIGN RESOURCES	2/10/86
• DEVELOP DETAILED PLAN INCLUDING RESOURCE ALLOCATION, DETAILED TIMING, REVIEW PROCEDURE AND TARGET DATES	2/17/86
• REVIEW TOTAL PLAN WITH ALPHA MANAGEMENT FOR APPROVAL	2/24/86
• FORMAL PRODUCT INVENTION REVIEW	6/86
• PROTOTYPE(S) REDUCED TO PRACTICE	12/86

SECOND GENERATION PRIORITIES

PRIORITIES

1. NO INCOMPLETE COMBUSTION/PYROLYSIS PRODUCTS INCLUDING NO CO.
2. AN ACCEPTABLE NICOTINE SUBSTITUTE. (TBD)
3. AN ACCEPTABLE SUBSTITUTE FOR GLASS FIBER MATERIAL.
4. A PRODUCT WHICH UTILIZES CURRENT OR MODIFIED "POWER PAC" IN A REFILLABLE/REUSABLE CONTAINER.

SECOND GENERATION OBJECTIVE

- TO DEVELOP AND MARKET A PRODUCT WHICH HAS ALL THE BENEFITS AND ADVANTAGES OF THE INTRODUCTORY PRODUCT, BUT HAS ADDITIONAL CONSUMER BENEFITS INCLUDED.

organization
& reporting

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mgmt group

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[illegible] OBJECTIVE

- To Develop and Market a Product which has all the Benefits and Advantages of the Satisfactory Product, but has Additional Consumer Benefits Included.

SECOND GENERATION PRODUCT

STATUS:

- PRODUCT IS ONLY FIRST GENERATION OF ENTIRELY NEW TECHNOLOGICAL DIRECTION.
- INDUSTRY WILL REACT TO OUR INITIATIVE.
  - WILL TAKE THEM TIME
- NEXT GENERATION SHOULD BE INTRODUCED BY RJR RATHER THAN COMPETITION.
- DEVELOPMENT WILL FOCUS ON ADDRESSING ADDITIONAL PERCEIVED CONSUMER WANTS.
- PLAN WILL BE DEVELOPED THAT IS CONSISTENT WITH AND INTEGRATED INTO OVERALL PROJECT PLAN.

[illegible]

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- [illegible]
- [illegible]

PROTECTION

INTRODUCTION.

SECURITY

SECURITY

PROJECT SPA

FINANCIAL ANALYSIS

(DOLLARS IN MILLIONS)

	[redacted]	[redacted]	1987	1988	[redacted]	[redacted]	[redacted]	1992	[redacted]
[redacted]	*	*	1.2	8.6	22.6	[redacted]	[redacted]	60.0	71.0
[redacted]	*	*	.2	1.4	3.9	7.1	[redacted]	10.9	12.5
[redacted]									
[redacted]	$ *	$ *	$45	$378	$910	$1722	$2217	$2751	$3294
[redacted]	*	*	33	239	645	1166	[redacted]	[redacted]	2158
[redacted]	*	*	12	89	265	556	775	[redacted]	[redacted]
[redacted]	2	8	54	171	122	154	[redacted]	[redacted]	134
[redacted]	(2)	(8)	(39)	(32)	138	422	[redacted]	777	[redacted]
[redacted]	*	*	(6)	(50)	(149)	(208)	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	$(65)	$(82)	$(11)	$ 154	[redacted]	[redacted]	[redacted]
[redacted]									
[redacted]	[redacted]	$(8)	$(45)	$(82)	$(11)	$154	$256	$301	[redacted]
[redacted]	*	*	*	1	2	5	6	7	8
[redacted]	*	*	2	13	35	[redacted]	88	111	132
[redacted]	(2)	(16)	[redacted]	(12)	(10)	[redacted]	[redacted]	(8)	(8)
[redacted]									
CASH FLOW	$(4)	$(20)	$(77)	$(80)	$ 16	$196	$342	$411	$514

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PROJECT SPA

FINANCIAL ANALYSIS

(DOLLARS IN MILLIONS)

	1985	1986	1987	1988	1989	1990	1991	1992	1993
VOLUME (BILLIONS)	-	-	1.2	8.6	22.6	40.9	50.4	60.0	71.0
SHARE OF MARKET	-	-	.2	1.4	3.9	7.1	8.8	10.5	12.5
INCOME									
NET SALES	$ -	$ -	$45	$328	$910	$1722	$2217	$2751	$3254
COSTS	-	-	33	239	645	1166	1442	1823	2158
GROSS PROFIT	-	-	12	89	265	556	775	928	1096
MARKETING	2	4	51	121	127	134	142	151	151
BRAND CONTRIBUTION	(2)	(4)	(39)	(32)	138	422	633	777	945
LOST CONTRIBUTION	-	-	(6)	(50)	(149)	(288)	(377)	(476)	(563)
NET BRAND CONTRIBUTION	$(2)	$(4)	$(45)	$(82)	$(11)	$ 134	$256	$301	$382
PROJECT CONTRIBUTION									
NET BRAND CONTRIBUTION	$(2)	$(4)	$(45)	$(82)	$(11)	$134	$256	$301	$382
PLUS: ALLOCATED MKTG.	-	-	-	1	2	5	6	7	8
FIXED COSTS	-	-	2	13	35	68	88	111	132
LESS: DEVELOPMENT EXP.	(2)	(16)	(34)	(12)	(10)	(11)	(8)	(8)	(8)
CONTRIBUTION TO CASH FLOW	$(4)	$(20)	$(77)	$(80)	$ 16	$196	$342	$411	$514

ALPHA I

OPPORTUNITY

YEAR	VOLUME (B)	SOM	NET SALES (MM)
1985	-	-	$ -
1986	-	-	$ -
1987	1.2	.2	$ 45
1988	8.6	1.4	328
1989	22.6	3.9	910
1990	40.9	7.1	1722
1991	50.4	8.8	2217
1992	60.0	10.5	2751
1993	71.0	12.5	$3254

[redacted]

[redacted]

[redacted]	[redacted]	[redacted]	[redacted] (PPM)
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	2.2	.2	[redacted]
[redacted]	8.6	1.4	328
[redacted]	32.6	5.9	910
[redacted]	40.9	7.1	1722
[redacted]	50.4	8.8	[redacted]
[redacted]	60.0	10.5	[redacted]
1993	71.0	12.5	[redacted]

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DEMAND ESTIMATE

- ALTERNATE SHARE SCENARIOS DEVELOPED.
  - OPTIMISTIC
  - PESSIMISTIC
  - MOST LIKELY
- BASIS:
  - NON-MENTHOL FILTER CATEGORY (1952-1954)
  - WINSTON (1954-1956)
  - KENT (1956-1958)
  - VANTAGE/MERIT (1970'S)
  - SEGMENT DRAW ANALYSIS
- MOST LIKELY:

	YEAR 1	YEAR 2	YEAR 3
AVERAGE SHARE	1.0	3.2	6.3
EXIT SHARE	2.0	4.5	8.0
VOLUME (MM)	5.84	18.88	36.12

OPPORTUNITY/COST

SUPPORT

SUPPORT

REGULATORY/LEGAL

REGULATORY/LEGAL

SCIENTIFIC AFFAIRS

SCIENTIFIC AFFAIRS

PUBLIC RELATIONS/PUBLIC AFFAIRS

- RECOGNIZED AS VITALLY IMPORTANT COMPONENT OF COMMUNICATION.
- COMMUNICATION OBJECTIVES AND CONSTITUENTS DEFINED:
  - THE GENERAL PUBLIC VIA THE MEDIA
  - REGULATORY AGENCIES
  - SCIENTIFIC COMMUNITY
  - FEDERAL LEGISLATORS (TOBACCO STATE, NON TOBACCO STATE)
  - TOBACCO GROWERS

• PRELIMINARY PLAN DEVELOPED	COMPLETE
• COMPLETE TACTICAL PLAN	3/86
• INITIATE REGULATORY AGENCY/SCIENTIFIC PROGRAMS AS APPROPRIATE	TBD
• IMPLEMENT PLAN	4/87

PUBLIC RELATIONS/PUBLIC AFFAIRS

- RECOGNIZED AS VERY IMPORTANT COMPONENT OF COMMUNICATIONS.
- COMMUNICATION OBJECTIVES AND CONSTITUENCIES DEFINED:
  - THE GENERAL PUBLIC VIA THE MEDIA
  - REGULATORY AGENCIES
  - SCIENTIFIC COMMUNITY
  - FEDERAL LEGISLATORS (TOBACCO STATE, NON TOBACCO STATE)
  - TOBACCO GROWERS
- PRELIMINARY PLAN DEVELOPED — COMPLETE
- COMPLETE TACTICAL PLAN — 3/86
- INITIATE REGULATORY AGENCY/SCIENTIFIC PROGRAMS AS APPROPRIATE — TBD
- IMPLEMENT PLAN — 4/87

POSITIONING

ALTERNATIVE STRATEGIC APPROACHES

"DOUBLE FOCUS"

- SPA IS A TRULY REVOLUTIONARY NEW CIGARETTE BRAND WHICH INTRODUCES, THROUGH THE APPLICATION OF INNOVATIVE NEW TECHNOLOGY, THE FIRST CIGARETTE PRODUCT WHICH DIRECTLY RESPONDS TO THE PRIMARY HEALTH ALLEGATION ASSOCIATED WITH CONVENTIONAL CIGARETTE PRODUCTS WHILE DELIVERING TASTE UNSURPASSED BY CONVENTIONAL FFLT CIGARETTES.

"ULTIMATE PRODUCT"

- SPA IS A TRULY REVOLUTIONARY NEW CIGARETTE BRAND WHICH INTRODUCES, THROUGH THE APPLICATION OF INNOVATIVE NEW TECHNOLOGY, THE FIRST CIGARETTE PRODUCT TO PROVIDE THE ULTIMATE IN CIGARETTE SMOKING ENJOYMENT BY:
  - RESPONDING DIRECTLY TO THE PRIMARY HEALTH ALLEGATION ASSOCIATED WITH CONVENTIONAL CIGARETTES.
  - DELIVERING UNSURPASSED TASTE AND SATISFACTION COMPARED TO FFLT CIGARETTES.
  - RESPONDING TO THE MAJOR SOCIAL ACCEPTABILITY ISSUES ASSOCIATED WITH CONVENTIONAL CIGARETTES.

POSITIONING

ALTERNATIVE STRATEGIC APPROACHES

"DOUBLE FOCUS"

- SPA IS A TRULY REVOLUTIONARY NEW CIGARETTE BRAND WHICH INTRODUCES, THROUGH THE APPLICATION OF INNOVATIVE NEW TECHNOLOGY, THE FIRST CIGARETTE PRODUCT WHICH DIRECTLY RESPONDS TO THE PRIMARY HEALTH ALLEGATION ASSOCIATED WITH CONVENTIONAL CIGARETTE PRODUCTS WHILE DELIVERING TASTE UNSURPASSED BY CONVENTIONAL FFLT CIGARETTES.

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  - RESPONDING DIRECTLY TO THE PRIMARY HEALTH ALLEGATION ASSOCIATED WITH CONVENTIONAL CIGARETTES,
  - DELIVERING UNSURPASSED TASTE AND SATISFACTION COMPARED TO FFLT CIGARETTES,
  - RESPONDING TO THE THREE MAJOR SOCIAL ACCEPTABILITY ISSUES ASSOCIATED WITH CONVENTIONAL CIGARETTES.

PURCHASING

21 DIFFERENT SUPPLIERS

15 NEW TO RJR

PURCHASING

21 DIFFERENT SUPPLIERS

15 NEW TO RJR

OPERATIONS DEVELOPMENT

- FACILITIES
- MACHINERY
- QA

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OPERATIONS DEVELOPMENT

- FACILITIES
- MACHINERY
- QA

Current Strategy

12/85

- Confirm Subjective Assessment of First Vs. Latter Puffs
- Identify Causes of First Puffs Off-Taste By Sensory and Chemical Means Systematic Study
  - Lighter Flame
  - Carbon S Content
  - FS Binder
  - GF Binder
  - Paper Burn Off
- Modify to Eliminate Problems
- Continue Flavor Development Efforts

Expected Result

3-6/86

- A Slightly Bland Taste Reminiscent of Tobacco Smoke Which Can Be Refined by Subtle Flavor Addition to Give a Consumer Acceptable Cigarette-Like Taste

Conclusion

- Much Progress Since 6/85
- No Expectation of Impacting Project Timing/ Integrity

[illegible] Summary

12/85

- [illegible] Assessment of First [illegible]
- Identify Causes of First Puffs Off-Taste By Summary and Original Means Systematic Study
  - Lighter Flame
  - Carbon S [illegible]
  - FS Binder
  - GF Binder
  - Paper Burn Off
- Modify to Eliminate Problems
- Continue Flavor Development Efforts

Expected Result

3-6/86

- A Slightly Bland Taste Reminiscent of Tobacco Smoke Which Can Be Refined by Subtle Flavor Addition to Give a Consumer Acceptable Cigarette-Like Taste

Conclusion

- Much Progress Since 6/85
- No Expectation of Impacting Project Timing/Integrity

PERFORMANCE OPTIMIZATION STAGE (CONTINUED)

- INCREASE FABRICATION CAPACITY TO MEET DEMANDS
  - DEVELOPMENT
  - QDA/CONSUMER TESTING
  - BA ASSESSMENT
  - AGING/SHELF LIFE STUDIES
  - FLAVOR DEVELOPMENT
- INCREASE SUPPORTING PROCESS DEVELOPMENT
  - MARUMERIZED TOBACCO
  - SPRAY DRIED EXTRACT
  - SINTERING ALUMINA
  - SUBSTRATE LOADING
- TASTE BARRIERS IDENTIFIED
  - SDE REMOVED FROM FS
  - OFF-TASTE INCREASED
  - CONSUMER TEST RESULTS/QDA
    - α-TASTE/AFTERTASTE
    - HARSHNESS, STRENGTH NEGATIVES

NEGATIVE ELIMINATION STAGE 10-12/85

- MODIFICATIONS
  - BLENDS
  - ADDITIVES
  - AEROSOL FORMER
  - FLAVOR
  - PAPER
- CONSUMER TEST II 12/85
  - INCREASED ACCEPTANCE
  - DECREASED NEGATIVES
- SUBJECTIVE JUDGEMENT
  - RELATIVELY ACCEPTABLE TASTE IN LATTER PUFFS ACHIEVED
    - FIRST FEW PUFFS PROBLEMATIC

Performance Optimization Stage (Continued)

- Increase Fabrication Capacity to Meet Demand
  - Development
  - [illegible]/Consumer Testing
  - [illegible] Assessment
  - Aging/Shelf Life Studies
  - Plant Development
- Continue Manufacturing Process Development
  - Homogenized Tobacco
  - Spray Dried Extract
  - Spherical Alumina
  - Substrate Loading
- Taste Problems Identified
  - SHE Removed from FS
  - Off-Taste Increased
  - Consumer Test Results/BDA
    - Aftertaste/Afterburn
    - Harshness, Strength Negatives

Negative Elimination Stage — 10-12/85

- Modifications
  - Blends
  - Additives
  - Aerosol Former
  - Flavor
  - Paper
- Consumer Test II — 12/85
  - Increased Acceptance
  - Decreased Negatives
- Subjective Judgement
  - Overwhelmingly Acceptable Taste in Latter Puffs Monitored
    - Finest Item Puffs Problematic

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R&D STRATEGY OVERVIEW

EARLY DEVELOPMENT

- GENERAL OBJECTIVE - DEVELOP PRODUCT
  - PC-1, PC-3, AND VARIATIONS
- MODEL G DEVELOPMENT — 5/85
  - INCLUDING MANUFACTURING CONCEPT
- MODEL H DEVELOPMENT — 6-7/85
  - CONCEPTUALIZED
  - DUAL PATH
- H REDUCED TO PRACTICE ON LAB SCALE AND BENEFITS RECOGNIZED — 7/85
  - SUPERIOR TASTE
  - ENHANCED FDA POSITION
  - INCREASED TOBACCO USAGE
  - DECREASED GF UTILIZATION
- H ADOPTED AS SINGLE DEVELOPMENT PATH — 7/85
  - DEVELOPMENT DELAY RECOGNIZED AND ACCEPTED

PERFORMANCE OPTIMIZATION STAGE

- MODIFICATIONS OF SYSTEM/COMPONENTS TO MEET PERFORMANCE GOALS AND CONFORM TO MANUFACTURING CONCEPT — 8-10/85
  - AEROSOL DELIVERY
  - NICOTINE DELIVERY
  - FS CONFIGURATION
  - CAPSULE CONFIGURATION/MANUFACTURING
  - SUBSTRATE CHANGE/CORROSION
  - TASTE IMPROVEMENT

[redacted]

[redacted]

- [redacted] - Develop Product
  - [redacted] and Variations
- [redacted] 5/85
  - [redacted] Manufacturing Concept
- Model N Development 6-7/85
  - Conceptualized
  - Dual Path
- N Reduced To Practice On Lab Scale 7/85
  And Benefits Recognized
  - Superior Taste
  - Enhanced FDA Position
  - Increased Tobacco Usage
  - Decreased GF Utilization
- N Adopted As Single Development Path [redacted]
  - Development Delay Recognized
    And Accepted

Performance Optimization Stage

- Modifications of System/Components to 8-10/85
  Meet Performance Goals and Conform to
  Manufacturing Concept
  - Aerosol Delivery
  - Nicotine Delivery
  - FS Configuration
  - Capsule Configuration/[redacted]
  - Substrate Change/[redacted]
  - Taste Improvement

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PRODUCT OVERVIEW

- RESPONDS TO MAJOR ALLEGATION AND LARGEST NEGATIVE CONSUMER PERCEPTION AGAINST OUR PRODUCT/INDUSTRY.
  - DOESN'T BURN TOBACCO
  - DOESN'T PRODUCE BY-PRODUCTS OF BURNING TOBACCO
  - DELIVERS RELATIVELY SIMPLE AND INNOCUOUS SMOKE AEROSOL
  - DOESN'T PRODUCE ADVERSE BIOLOGICAL ACTIVITY ALLEGED TO BE THE PRIMARY FOCUS IN THE SMOKING AND HEALTH CONTROVERSY

- RESPONDS TO THE PRIMARY SOCIAL ACCEPTABILITY ISSUES.
  - EXHALED PRODUCT IS "CLEAN"
  - NO SIDESTREAM
  - LOW IGNITION PROPENSITY
  - NO STAINING
  - REDUCED OBJECTIONABLE ODOR

- VERY IMPORTANTLY WILL DELIVER TASTE, SATISFACTION AND RITUALISTIC BENEFITS COMPARABLE TO CONVENTIONAL FULL FLAVOR LOW TAR CIGARETTES.

- TRUE TECHNOLOGICAL INNOVATION WITH MEANINGFUL CONSUMER BENEFITS CONSISTENT WITH PERCEIVED CONSUMER WANTS.

PRODUCT OVERVIEW

- [illegible] THE MAJOR [illegible] AND [illegible] NEGATIVE CONSUMER [illegible] AGAINST [illegible].
  - [illegible] TOBACCO
  - [illegible] PRODUCE BY-PRODUCTS OF BURNING TOBACCO
  - [illegible] RELATIVELY SIMPLE AND INNOCUOUS SMOKE [illegible]
  - [illegible] PRODUCE ADVERSE BIOLOGICAL ACTIVITY ALLEGED TO BE THE PRIMARY FOCUS IN THE SMOKING AND HEALTH CONTROVERSY.

- [illegible] THE PRIMARY SOCIAL ACCEPTABILITY ISSUES.
  - [illegible] PRODUCT IS "CLEAN"
  - [illegible]
  - LOW [illegible] PROPENSITY
  - [illegible]
  - [illegible] OBJECTIONABLE ODOR

- VERY IMPORTANTLY WILL DELIVER TASTE, SATISFACTION AND RITUALISTIC BENEFITS COMPARABLE TO CONVENTIONAL FULL FLAVOR LOW TAR CIGARETTES.

- TRUE TECHNOLOGICAL INNOVATION WITH MEANINGFUL CONSUMER BENEFITS CONSISTENT WITH PERCEIVED CONSUMER WANTS.

STATUS

STATUS

BIOLOGICAL/CHEMICAL CHARACTERIZATION

BIOLOGICAL/CHEMICAL CHARACTERIZATION

POSITIONING/CORPORATE RESPONSIBILITY

POSITIONING/CORPORATE RESPONSIBILITY

OVERALL PROJECT TIMETABLE SUMMARY

KEY EVENTS

KEY EVENT	TIMING
• ALTERNATIVE PRODUCT DESIGN CONFIGURATIONS IDENTIFIED	6/85
• OPERATING DESIGN SPECIFICATIONS ESTABLISHED	7/85
• MANUFACTURING FEASIBILITY "H" PROTOTYPE	9/85
• SHELF LIFE/PACKAGE SEAL ISSUE	12/85
• CRITICAL PURCHASING PLAN COMPONENTS (CAPSULE, GLASS FIBERS AND FUEL SOURCE)	10-12/85
• FLAVOR WORK COMPLETE	6/86
• CAMOUFLAGED PRODUCT TESTING	10/85-8/86
• MARKETING ELEMENTS COMPLETE	3/86
• DEVELOPMENT PLANT OPERATIONAL	11/86
• PILOT MANUFACTURING FACILITY OPERATIONAL	4/87
• TEST MARKET	
- START	5/87
- COMPLETE	9/87
• EXPANSION	10/87

[redacted] PROJECT TIMETABLE SUMMARY

KEY EVENTS

KEY EVENT	TIMING
• ALTERNATIVE PRODUCT DESIGN CONFIGURATIONS IDENTIFIED	6/85
• OPERATING DESIGN SPECIFICATIONS ESTABLISHED	7/85
• MANUFACTURING FEASIBILITY "H" PROTOTYPE	9/85
• SHELF LIFE/PACKAGE SEAL ISSUE	12/85
• CRITICAL PURCHASING PLAN COMPONENTS (CAPSULE, GLASS FIBERS AND FUEL SOURCE)	10-12/85
• FLAVOR WORK COMPLETE	6/86
• CAMOUFLAGED PRODUCT TESTING	10/85-8/86
• MARKETING ELEMENTS COMPLETE	3/86
• DEVELOPMENT PLANT OPERATIONAL	11/86
• PILOT MANUFACTURING FACILITY OPERATIONAL	4/87
• TEST MARKET	
— [redacted]	5/87
— [redacted]	9/87
• [redacted]	10/87

PROJECT ALPHA
KEY DATE SUMMARY
BY FUNCTIONAL AREA

* INDICATES CHANGES FROM PREVIOUS REPORT

*DATES CRITICAL ISSUE/DATE

FUNCTIONAL AREA	FUNCTION	ACTIVITY DESCRIPTION	RESPONSIBLE INDIVIDUAL	10/14/85 OP. PLAN COMPL. DATE	CURRENT ESTIMATED COMPL. DATE	REVISED BY	NOTE
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #1-STUDY COMPLETE	SIMMONS	06-Dec-85	19-Dec-85 *	MDW	COMPLETE
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #1-STUDY RESULTS AVAILABLE	SIMMONS	07-Jan-86	21-Jan-86 *	MDW	COMPLETE
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #2-SELECT LABORATORY/IN-HOUSE	SIMMONS		31-Dec-85 *	MDW	COMPLETE
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #2-3750 PROTOTYPES REQUIRED	COTHREN		15-Jan-86 *	MDW	COMPLETE
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #2-STUDY BEGINS	SIMMONS		15-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #2-3750 PROTOTYPES REQUIRED	COTHREN		27-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #2-VERBAL REPORT	SIMMONS		07-Apr-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #2-FINAL RESULTS AVAILABLE	SIMMONS		29-May-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #3-SELECT LABORATORY	SIMMONS		15-Jan-86 *	MDW	COMPLETE
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #3-LEGAL PREPARE CONTRACT	JOWDY		20-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #3-CONTRACT SIGNED-BATTELLE NW	SIMMONS		01-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #3-6000 PROTOTYPES REQUIRED	COTHREN		21-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #3-STUDY BEGINS	SIMMONS		15-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #3-6000 PROTOTYPES REQUIRED	COTHREN		22-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #3-VERBAL REPORT	SIMMONS		02-May-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	14 DAY TEST #3-FINAL RESULTS AVAILABLE	SIMMONS		18-Jul-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #1-SELECT LABORATORY/IN-HOUSE	SIMMONS	15-Dec-85	15-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #1-4000 PROTOTYPES/WK REQUIRED	COTHREN	20-Jan-86	15-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #1-STUDY BEGINS	SIMMONS	20-Jan-86	20-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #1-30 DAY VERBAL REPORT	SIMMONS	25-Apr-86	16-May-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #1-90 DAY VERBAL REPORT	SIMMONS	25-Apr-86	28-Jul-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #1-FINAL RESULTS AVAILABLE	SIMMONS	21-Jul-86	16-Oct-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #2-SELECT LABORATORY	SIMMONS	15-Jan-86	15-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #2-LEGAL PREPARE CONTRACT	JOWDY		15-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #2-CONTRACT SIGNED-BATTELLE NW	SIMMONS	01-Feb-86	01-Mar-86	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #2-6000 PROTOTYPES/WK REQUIRED	COTHREN	10-Feb-86	17-Mar-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #2-STUDY BEGINS	SIMMONS	10-Feb-86	01-Apr-86	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #2-VERBAL REPORT	SIMMONS	16-May-86	15-Aug-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #2-FINAL RESULTS AVAILABLE	SIMMONS	15-Aug-86	31-Dec-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #3-SELECT LABORATORY	SIMMONS	15-Apr-86	01-Mar-86 *	MDW	ON-HOLD
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #3-LEGAL PREPARE CONTRACT	JOWDY		01-Apr-86 *	MDW	ON-HOLD
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #3-CONTRACT SIGNED	SIMMONS	01-May-86	01-May-86 *	MDW	ON-HOLD
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #3-5000 PROTOTYPES/WK REQUIRED	COTHREN	19-May-86	01-Jul-86 *	MDW	ON-HOLD
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #3-STUDY BEGINS	SIMMONS	19-May-86	14-Jul-86 *	MDW	ON-HOLD
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #3-VERBAL REPORT	SIMMONS	25-Aug-86	02-Dec-86 *	MDW	ON-HOLD
BIO/BEHAV	TOXICOLOGY	90 DAY TEST #3-FINAL RESULTS AVAILABLE	SIMMONS	22-Nov-86	10-Apr-87 *	MDW	ON-HOLD
BIO/BEHAV	TOXICOLOGY	IN-HOUSE ENZYME TEST-5000 PROTOTYPES REQ.	COTHREN	15-Dec-85	01-Jan-86 *	MDW	CANCELLED
BIO/BEHAV	TOXICOLOGY	IN-HOUSE ENZYME TEST-STUDY BEGINS	SIMMONS	15-Dec-85	01-Jan-86 *	MDW	CANCELLED
BIO/BEHAV	TOXICOLOGY	IN-HOUSE ENZYME TEST-STUDY COMPLETED	SIMMONS	15-Mar-86	31-Mar-86 *	MDW	CANCELLED
BIO/BEHAV	TOXICOLOGY	IN-HOUSE ENZYME TEST-STUDY RESULTS AVAIL.	SIMMONS	15-Apr-86	30-Apr-86 *	MDW	CANCELLED
BIO/BEHAV	TOXICOLOGY	2 YEAR TEST-SELECT LABORATORY	SIMMONS	01-Sep-86	01-Sep-86	MDW	
BIO/BEHAV	TOXICOLOGY	2 YEAR TEST-LEGAL PREPARE CONTRACT	JOWDY		15-Sep-86	MDW	
BIO/BEHAV	TOXICOLOGY	2 YEAR TEST-CONTRACT SIGNED	SIMMONS	01-Oct-86	01-Oct-86	MDW	
BIO/BEHAV	TOXICOLOGY	2 YEAR TEST-5000 PROTOTYPES/WEEK REQUIRED	COTHREN	15-Oct-86	15-Dec-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	2 YEAR TEST-STUDY BEGINS	SIMMONS	15-Oct-86	02-Jan-87 *	MDW	
BIO/BEHAV	TOXICOLOGY	2 YEAR TEST-VERBAL REPORT	SIMMONS	15-Oct-88	30-Jun-89 *	MDW	
BIO/BEHAV	TOXICOLOGY	2 YEAR TEST-FINAL RESULTS AVAILABLE	SIMMONS	01-Apr-89	30-Aug-89 *	MDW	
BIO/BEHAV	TOXICOLOGY	SHORT TERM TESTS-SELECT LABORATORY	SIMMONS	15-Feb-86	31-Dec-85	MDW	

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[illegible]
[illegible]
[illegible]

[illegible]

● INDICATES CHANGE
FROM PREVIOUS REPORT

FUNCTIONAL AREA	FUNCTION	ACTIVITY DESCRIPTION	RESPONSIBLE INDIVIDUAL	[illegible] COMPL. DATE	CURRENT ESTIMATED COMPL. DATE	CHANGES BY	NOTE
[illegible]	TOXICOLOGY	14 DAY TEST [illegible]	[illegible]	[illegible]-Dec-85	19-Dec-85 ●	[illegible]	COMPLETE
[illegible]	TOXICOLOGY	14 DAY TEST [illegible]	[illegible]	[illegible]-Jan-86	21-Jan-86 ●	[illegible]	COMPLETE
[illegible]	TOXICOLOGY	14 DAY TEST 02-SELECT [illegible]	[illegible]		31-Dec-85 ●	[illegible]	COMPLETE
[illegible]	TOXICOLOGY	14 DAY TEST 02-[illegible]	[illegible]		15-Jan-86 ●	[illegible]	COMPLETE
[illegible]	TOXICOLOGY	14 DAY TEST 02-[illegible]	[illegible]		15-Jan-86	[illegible]	
[illegible]	TOXICOLOGY	14 DAY TEST 02-[illegible] PROTOTYPES [illegible]	[illegible]		27-Jan-86	[illegible]	
[illegible]	TOXICOLOGY	14 DAY TEST 02-VERBAL REPORT	SIMMONS		07-Apr-86 ●	[illegible]	
[illegible]	TOXICOLOGY	14 DAY TEST 02-FINAL RESULTS AVAILABLE	SIMMONS		29-May-86 ●	[illegible]	
[illegible]	TOXICOLOGY	14 DAY TEST 02-SELECT LABORATORY	SIMMONS		15-Jan-86 ●	[illegible]	COMPLETE
[illegible]	TOXICOLOGY	14 DAY TEST 02-LEGAL PREPARE CONTRACT	[illegible]		30-Jan-86	[illegible]	
[illegible]	TOXICOLOGY	14 DAY TEST 02-CONTRACT SIGNED-BATTELLE [illegible]	SIMMONS		08-Feb-86	[illegible]	
[illegible]	TOXICOLOGY	[illegible] DAY TEST 02-[illegible] PROTOTYPES RECEIVED	SIMMONS		21-Feb-86	[illegible]	
[illegible]	TOXICOLOGY	[illegible] DAY TEST 02-STUDY DESIGN	SIMMONS		15-Feb-86	[illegible]	
[illegible]	TOXICOLOGY	[illegible] DAY TEST 02-[illegible] PROTOTYPES RECEIVED	SIMMONS		22-Feb-86	[illegible]	
[illegible]	TOXICOLOGY	[illegible] DAY TEST 02-VERBAL REPORT	SIMMONS		05-May-86 ●	[illegible]	
[illegible]	TOXICOLOGY	[illegible] DAY TEST 02-FINAL RESULTS AVAILABLE	SIMMONS		10-Jul-86 ●	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-SELECT LABORATORY/IN-HOUSE	SIMMONS	15-Dec-85	20-Jan-86	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-[illegible] PROTOTYPES/NK RECEIVED	SIMMONS	20-Jan-86	10-Feb-86	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-STUDY DESIGN	SIMMONS	20-Jan-86	26-Feb-86	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-30 DAY VERBAL REPORT	SIMMONS	23-Apr-86	16-May-86 ●	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-[illegible] DAY VERBAL REPORT	SIMMONS	23-Apr-86	20-Jul-86 ●	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-FINAL RESULTS AVAILABLE	SIMMONS	21-Jul-86	10-Oct-86 ●	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-SELECT LABORATORY	SIMMONS	15-Jan-86	10-Feb-86	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-LEGAL PREPARE CONTRACT	[illegible]		10-Feb-86	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-CONTRACT SIGNED-BATTELLE [illegible]	SIMMONS	01-Feb-86	08-Mar-86	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-[illegible] PROTOTYPES/NK RECEIVED	OTHERS	10-Feb-86	17-Mar-86 ●	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-STUDY DESIGN	SIMMONS	10-Feb-86	08-Apr-86	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-VERBAL REPORT	SIMMONS	16-May-86	15-Aug-86 ●	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 02-FINAL RESULTS AVAILABLE	SIMMONS	15-Aug-86	31-Dec-86 ●	[illegible]	
[illegible]	TOXICOLOGY	90 DAY TEST 03-SELECT LABORATORY	SIMMONS	15-Apr-86	[illegible]-Mar-86 ●	[illegible]	ON-HOLD
[illegible]	TOXICOLOGY	90 DAY TEST 03-LEGAL PREPARE CONTRACT	[illegible]		[illegible]-Apr-86 ●	[illegible]	ON-HOLD
[illegible]	TOXICOLOGY	90 DAY TEST 03-CONTRACT SIGNED	SIMMONS	01-May-86	[illegible]-May-86 ●	[illegible]	ON-HOLD
[illegible]	TOXICOLOGY	90 DAY TEST 03-[illegible] PROTOTYPES/NK RECEIVED	[illegible]	19-May-86	[illegible]-Jul-86 ●	[illegible]	ON-HOLD
[illegible]	TOXICOLOGY	90 DAY TEST 03-STUDY DESIGN	SIMMONS	19-May-86	30-Jul-86 ●	[illegible]	ON-HOLD
[illegible]	TOXICOLOGY	90 DAY TEST 03-VERBAL REPORT	SIMMONS	25-Aug-86	02-Dec-86 ●	[illegible]	ON-HOLD
[illegible]	TOXICOLOGY	90 DAY TEST 03-FINAL RESULTS AVAILABLE	SIMMONS	22-Nov-86	30-Apr-87 ●	[illegible]	ON-HOLD
[illegible]	TOXICOLOGY	IN-HOUSE SMOKE TEST-[illegible] PROTOTYPES REC.	[illegible]	15-Dec-85	01-Jan-86 ●	[illegible]	CANCELLED
[illegible]	TOXICOLOGY	IN-HOUSE SMOKE TEST-[illegible]	SIMMONS	15-Dec-85	01-Jan-86 ●	[illegible]	CANCELLED
[illegible]	TOXICOLOGY	IN-HOUSE SMOKE TEST-[illegible]	SIMMONS	15-Mar-86	31-Mar-86 ●	[illegible]	CANCELLED
[illegible]	TOXICOLOGY	IN-HOUSE SMOKE TEST-[illegible] RESULTS AVAIL.	[illegible]	15-Apr-86	30-Apr-86 ●	[illegible]	CANCELLED
[illegible]	TOXICOLOGY	2 YEAR TEST-SELECT LABORATORY	[illegible]	01-Sep-86	01-Sep-86	[illegible]	
[illegible]	TOXICOLOGY	2 YEAR TEST-LEGAL PREPARE CONTRACT	[illegible]		15-Sep-86	[illegible]	
[illegible]	TOXICOLOGY	2 YEAR TEST-CONTRACT SIGNED	[illegible]	01-Oct-86	01-Oct-86	[illegible]	
[illegible]	TOXICOLOGY	2 YEAR TEST-[illegible]	[illegible]	15-Oct-86	15-Dec-86 ●	[illegible]	
[illegible]	TOXICOLOGY	2 YEAR TEST-[illegible]	[illegible]	15-Oct-86	02-Jan-87 ●	[illegible]	
[illegible]	TOXICOLOGY	2 YEAR TEST-VERBAL [illegible]	[illegible]	25-Oct-88	30-Jan-89 ●	[illegible]	
[illegible]	TOXICOLOGY	2 YEAR TEST-FINAL RESULTS [illegible]	[illegible]	04-Apr-89	30-Aug-89 ●	[illegible]	
[illegible]	TOXICOLOGY	[illegible]	[illegible]	15-Feb-86	31-Dec-85	[illegible]	

PROJECT ALPHA
KEY DATE SUMMARY
BY FUNCTIONAL AREA

DENOTES CRITICAL ISSUE/DATE

* INDICATES CHANGE FROM PREVIOUS REPORT

FUNCTIONAL AREA	FUNCTION	ACTIVITY DESCRIPTION	RESPONSIBLE INDIVIDUAL	10/14/85 OP. PLAN COMPL. DATE	CURRENT ESTIMATED COMPL. DATE	REVISED BY	NOTE
BIO/BEHAV	TOXICOLOGY	SHORT TERM TESTS-LEGAL PREPARE CONTRACT	JOWDY		05-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	SHORT TERM TESTS-CONTRACT SIGNED-SRI	SIMMONS	01-Mar-86	10-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	SHORT TERM TESTS-1000 PROTOTYPES REQUIRED	COTHREN	01-Mar-86	24-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	SHORT TERM TESTS-STUDY BEGINS	SIMMONS	01-Mar-86	20-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	SHORT TERM TESTS-VERBAL REPORT	SIMMONS	30-May-86	15-Mar-86	MDW	
BIO/BEHAV	TOXICOLOGY	SHORT TERM TESTS-FINAL RESULTS AVAILABLE	SIMMONS	30-Jun-86	15-Apr-86	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 14 DAY TEST-SELECT LABORATORY	SIMMONS	17-Nov-85	17-Nov-85	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 14 DAY-LEGAL PREPARE CONTRACT	JOWDY		28-Dec-85	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 14 DAY TEST-CONTRACT SIGNED	SIMMONS	01-Jan-86	01-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 14 DAY TEST-STUDY BEGINS	SIMMONS	20-Jan-86	20-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 14 DAY TEST-VERBAL REPORT	SIMMONS	03-Feb-86	23-May-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 14 DAY TEST-FINAL RESULTS AVAIL.	SIMMONS	01-Apr-86	31-Jul-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 90 DAY TEST-SELECT LABORATORY	SIMMONS	01-Feb-86	01-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 90 DAY-LEGAL PREPARE CONTRACT	JOWDY		15-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 90 DAY TEST-CONTRACT SIGNED	SIMMONS	01-Mar-86	01-Mar-86	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 90 DAY TEST-STUDY BEGINS	SIMMONS	17-Mar-86	17-Mar-86	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 90 DAY TEST-STUDY COMPLETED	SIMMONS	20-Jun-86	20-Jun-86	MDW	
BIO/BEHAV	TOXICOLOGY	GLYCEROL 90 DAY TEST-STUDY RESULTS AVAIL.	SIMMONS	22-Sep-86	30-Oct-86 *	MDW	
BIO/BEHAV	TOXICOLOGY	DROSOPHILA TEST-SELECT LABORATORY	SIMMONS	01-Apr-86	10-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	DROSOPHILA TEST-LEGAL PREPARE CONTRACT	JOWDY		15-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	DROSOPHILA TEST-CONTRACT SIGNED	SIMMONS	01-May-86	31-Jan-86	MDW	
BIO/BEHAV	TOXICOLOGY	DROSOPHILA TEST-1000 PROTOTYPES REQUIRED	COTHREN	02-Jun-86	24-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	DROSOPHILA TEST-STUDY BEGINS	SIMMONS	02-Jun-86	24-Feb-86	MDW	
BIO/BEHAV	TOXICOLOGY	DROSOPHILA TEST-VERBAL REPORT	SIMMONS	02-Sep-86	23-May-86	MDW	
BIO/BEHAV	TOXICOLOGY	DROSOPHILA TEST-FINAL RESULTS AVAILABLE	SIMMONS	02-Oct-86	23-Jun-86	MDW	
OP. DEV.	MACHINERY	H-MODEL-DEVELOP MANUFACTURING CONCEPT	BAKER	15-Sep-85	15-Sep-85	WBS	COMPLETE
OP. DEV.	MACHINERY	H-MODEL-EVALUATE EQUIPMENT IMPACT	BAKER	15-Sep-85	15-Sep-85	WBS	COMPLETE
OP. DEV.	MACHINERY	H-MODEL-EVALUATE IMPACT ON PROJECT TIMING	BAKER	15-Sep-85	15-Sep-85	WBS	COMPLETE
OP. DEV.	MACHINERY	H-MODEL-DEVELOP LAB SCALE MACHINERY	BAKER	31-Oct-85	15-Dec-85	WBS	ON-GOING
OP. DEV.	MACHINERY	DEV PLANT-GLASS FIBER MATL/RJR MACHINERY	R & D	01-Nov-85	25-Jan-86	WBS	
OP. DEV.	MACHINERY	DEV PLANT-COMPLETE RJR MACHINERY DESIGNS	BAKER	01-Jan-86	31-Mar-86 *	WBS	IN-PROGRESS
OP. DEV.	MACHINERY	DEV PLANT-SHIP HAUNI MACHINES	BAKER	15-Aug-86	15-Aug-86	WBS	
OP. DEV.	MACHINERY	DEV PLANT-SHIP BOSCH MACHINES	BAKER	31-Dec-85	31-Dec-85 *	WBS	COMPLETE
OP. DEV.	MACHINERY	DEV PLANT-SHIP RJR MACHINES	BAKER	15-Aug-86	15-Aug-86	WBS	
OP. DEV.	MACHINERY	DEV PLANT-SHIP G.D. PACKER CHANGE PARTS	BEESON		31-Oct-85	WBS	COMPLETE
OP. DEV.	MACHINERY	DEV PLANT-INSTALL/TEST MACHINES	BAKER	01-Oct-86	31-Oct-86	WBS	
OP. DEV.	MACHINERY	DEV PLANT-STARTUP/PRODUCE R&D VOLUME	BAKER/COTHREN	01-Nov-86	01-Nov-86	WBS	
OP. DEV.	MACHINERY	DEV PLANT-MODIFY MACHINERY	BAKER	01-Dec-86	01-Dec-86	WBS	
OP. DEV.	MACHINERY	PILOT-COMPLETE RJR MACHINE DESIGN	BAKER	01-Sep-86	01-Dec-86	WBS	
OP. DEV.	MACHINERY	PILOT-SHIP HAUNI MACHINES	BASS/BAKER	01-Mar-87	01-Mar-87	WBS	
OP. DEV.	MACHINERY	PILOT-SHIP BOSCH MACHINES	BASS/BAKER	31-Aug-86	31-Aug-86	WBS	
OP. DEV.	MACHINERY	PILOT-SHIP RJR MACHINES	BASS/BAKER	01-Mar-87	01-Mar-87	WBS	
OP. DEV.	MACHINERY	PILOT-SHIP G. D. PACKERS	BEESON		28-Feb-87	WBS	
OP. DEV.	MACHINERY	PILOT-INSTALL/TEST MACHINES	BEESON	31-Mar-87	31-Mar-87	WBS	
OP. DEV.	MACHINERY	PILOT-START PIPELINE PROD/TEST MARKET	COTHREN	01-Apr-87	01-Apr-87	WBS	
OP. DEV.	MACHINERY	PILOT-PIPELINE PROD NATL INTRODUCTION	COTHREN	01-Aug-87	01-Aug-87	WBS	
OP. DEV.	MACHINERY	PILOT-START NATIONAL PRODUCTION	COTHREN	01-Oct-87	01-Oct-87	WBS	

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	JONCY		07-Jan-86	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	01-Mar-86	31-Jan-86	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	01-Mar-86	30-Feb-86	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	31-Mar-86	30-Jan-86	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	30-May-86	25-Mar-86	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	30-Jan-86	25-Apr-86	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	31-Mar-87	31-Mar-87	[illegible]	
[illegible]	[illegible]	[illegible]	JONCY		30-Dec-86	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	01-Jan-86	01-Jan-86	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	30-Jan-86	30-Jan-86	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	07-Feb-86	25-Mar-86 0	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	01-Apr-86	31-Oct-86 0	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	04-Feb-86	01-Feb-86	[illegible]	
[illegible]	[illegible]	[illegible]	JONCY		15-Feb-86	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	01-Mar-86	01-Mar-86	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	17-Mar-86	17-Mar-86	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	30-Jan-86	30-Jan-86	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	22-Sep-86	30-Oct-86 0	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	01-Apr-86	10-Jan-86	[illegible]	
[illegible]	[illegible]	[illegible]	JONCY		15-Jan-86	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	01-May-86	31-Jan-86	[illegible]	
[illegible]	[illegible]	[illegible]	ESTHREA	02-Jan-86	30-Feb-86	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	02-Jan-86	30-Feb-86	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	02-Sep-86	25-May-86	[illegible]	
[illegible]	[illegible]	[illegible]	SIMMONS	02-Oct-86	23-Jan-86	[illegible]	
P. DEV.	MACHINERY	N-MODEL-DEVELOP MANUFACTURING CONCEPT	BAKER	15-Sep-85	15-Sep-85	005	COMPLETE
P. DEV.	MACHINERY	N-MODEL-EVALUATE DEVELOPMENT IMPACT	BAKER	15-Sep-85	15-Sep-85	005	COMPLETE
P. DEV.	MACHINERY	N-MODEL-EVALUATE IMPACT ON PRODUCT TESTING	BAKER	15-Sep-85	15-Sep-85	005	COMPLETE
P. DEV.	MACHINERY	N-MODEL-DEVELOP LAB SCALE MACHINERY	BAKER	31-Oct-85	15-Dec-85	005	ON-GOING
P. DEV.	MACHINERY	DEV PLANT-PLANS FOR MAJOR MACHINERY	B & B	01-Nov-85	25-Jan-86	005	
P. DEV.	MACHINERY	DEV PLANT-COMPLETE MAJOR MACHINERY ORDERING	BAKER	01-Jan-86	31-Mar-86 0	005	IN-PROGRESS
P. DEV.	MACHINERY	DEV PLANT-SHOP DRAWING MACHINERY	BAKER	15-Aug-86	15-Aug-86	005	
P. DEV.	MACHINERY	DEV PLANT-SHOP DRAWING MACHINERY	BAKER	31-Dec-85	31-Dec-85 0	005	COMPLETE
P. DEV.	MACHINERY	DEV PLANT-SHOP DRAWING MACHINERY	BAKER	15-Aug-86	15-Aug-86	005	
P. DEV.	MACHINERY	DEV PLANT-SHOP DRAWING DUAL PRODUCT CHANGE MACHINE	[illegible]		31-Oct-85	005	COMPLETE
P. DEV.	MACHINERY	DEV PLANT-SHOP DRAWING MACHINERY	BAKER	01-Oct-86	31-Oct-86	005	
P. DEV.	MACHINERY	DEV PLANT-SHOP DRAWING MACHINERY	[illegible]	01-Nov-86	01-Nov-86	005	
P. DEV.	MACHINERY	DEV PLANT-SHOP DRAWING MACHINERY	BAKER	01-Dec-86	01-Dec-86	005	
P. DEV.	MACHINERY	DEV PLANT-SHOP DRAWING MACHINERY	BAKER	01-Sep-86	01-Dec-86	005	
P. DEV.	MACHINERY	PLANT-PURCHASE MAJOR MACHINERY	BAKER/BAKER	01-Mar-87	01-Mar-87	005	
P. DEV.	MACHINERY	PLANT-PURCHASE MAJOR MACHINERY	BAKER/BAKER	31-Aug-86	31-Aug-86	005	
P. DEV.	MACHINERY	PLANT-PURCHASE MAJOR MACHINERY	BAKER/BAKER	01-Mar-87	01-Mar-87	005	
P. DEV.	MACHINERY	PLANT-PURCHASE MAJOR MACHINERY	BAKER		28-Feb-87	005	
P. DEV.	MACHINERY	PLANT-PURCHASE MAJOR MACHINERY	BAKER	28-Mar-87	31-Mar-87	005	
P. DEV.	MACHINERY	PLANT-PURCHASE MAJOR MACHINERY	BAKER	01-Apr-87	01-Apr-87	005	
P. DEV.	MACHINERY	PLANT-PURCHASE MAJOR MACHINERY	BAKER	01-Aug-87	01-Aug-87	005	
P. DEV.	MACHINERY	PLANT-PURCHASE MAJOR MACHINERY	BAKER	01-Oct-87	01-Oct-87	005	

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PROJECT TIMING

- OUR TIMETABLE IS SELF-IMPOSED AND VERY AGGRESSIVE.
  - ASSUMES NO MAJOR "GLITCHES"
- DEALING WITH RADICAL NEW TECHNOLOGY.
  - "ENGINEERED" AND VERY COMPLEX PRODUCT
  - REQUIRES MAJOR MODIFICATIONS TO EXISTING MACHINERY AND A NUMBER OF NEW MACHINES
  - WORKING WITH NON-TRADITIONAL COMPONENTS
  - WORKING WITH NEW SUPPLIERS
  - COMPLEX SCIENTIFIC TESTING TO SUPPORT PRODUCT CONCEPT
  - CHALLENGING FLAVOR ISSUES
  - UNIQUE SUPPORT PROCESSES
  - DIFFERENT AND EXTREMELY STRINGENT INSTRUMENTATION AND QUALITY ASSURANCE METHODS
  - CHALLENGING MARKETING ISSUES WITHIN A COMPLEX REGULATORY AND LEGAL ENVIRONMENT
  - 464 CRITICAL MILESTONES
  - NO DEPARTURE FROM OUR STANDARD FOR EXCELLENCE
- NOT A QUALIFICATION TO EFFORT BUT A REALITY.
  - GIVE 110%+

PROJECT TIMING

- OUR TIMETABLE IS SELF-IMPOSED AND VERY AGGRESSIVE.
  - ASSUMES NO MAJOR "SURPRISES"
- DEALING WITH ENTIRELY NEW TECHNOLOGY.
  - "ENGINEERED" AND VERY COMPLEX PRODUCT
  - REQUIRES MAJOR MODIFICATIONS TO EXISTING MACHINERY AND A NUMBER OF NEW MACHINES
  - WORKING WITH NON-TRADITIONAL COMPONENTS
  - WORKING WITH NEW SUPPLIERS
  - COMPLEX SCIENTIFIC TESTING TO SUPPORT PRODUCT CONCEPT
  - CHALLENGING FLAVOR ISSUES
  - UNIQUE SUPPORT PROCESSES
  - DIFFERENT AND EXTREMELY STRINGENT INSTRUMENTATION AND QUALITY ASSURANCE METHODS
  - CHALLENGING MARKETING ISSUES WITHIN A COMPLEX REGULATORY AND LEGAL ENVIRONMENT
  - 464 CRITICAL MILESTONES
  - NO DEPARTURE FROM OUR STANDARD FOR EXCELLENCE
- NOT A QUALIFICATION TO EFFORT BUT A REALITY.
  - GOING 100%

AGGRESSIVE PROJECT MANAGEMENT APPROACH

- SEPARATE UNIT FORMED.
- INDIVIDUALS SELECTED AND DEDICATED WITHIN EACH DEPARTMENT TO WORK EXCLUSIVELY ON THIS PROJECT.
- SIMULTANEOUS PATH APPROACH AS OPPOSED TO A MORE TRADITIONAL BY-THE-BOOK METHOD.

PRODUCT	MACHINERY	FACILITIES	MARKETING

- RISK IS INVOLVED.
- SUCCESS WILL DRIVE ENORMOUS RETURN.
- EMPLOYING SOUND/RIGOROUS MANAGEMENT PRACTICES.
  - STRONG PLANNING SYSTEM IN PLACE
    - . DEPARTMENTAL MILESTONES
    - . INTERDEPARTMENTAL LINKAGES
    - . BY CRITICAL ISSUE
- SOUND FINANCIAL CONTROLS IN PLACE.
  - MONITORING OF ALL COMMITMENTS AND AT-RISK POSITION
  - VIGILANCE ON AT-RISK POSITION RELATIVE TO CRITICAL ISSUE RESOLUTION/KEY DECISION DATES
  - ASSURE THAT CRITICAL ISSUE RESOLVED OR POTENTIAL FOR RESOLUTION VERY HIGH BEFORE SUBSTANTIVE FINANCIAL EXPOSURE CONSIDERED
- TIGHT SECURITY.

[illegible] PROJECT MANAGEMENT APPROACH

- [illegible] UNITS FORMED.
- [illegible] SELECTED AND DEDICATED WITHIN EACH DEPARTMENT TO WORK EXCLUSIVELY ON THIS PROJECT.
- SIMULTANEOUS [illegible] APPROACH AS OPPOSED TO A MORE TRADITIONAL BY-THE-BOOK METHOD.

PRODUCT	MACHINERY	FACILITIES	MARKETING

- RISK IS INVOLVED.
- SUCCESS WILL DRIVE ENORMOUS RETURN.
- EMPLOYING SOUND/RIGOROUS MANAGEMENT PRACTICES.
  - STRONG PLANNING SYSTEM IN PLACE
    - . DEPARTMENTAL MILESTONES
    - . INTERDEPARTMENTAL LINKAGES
    - . BY CRITICAL ISSUE
- SOUND FINANCIAL CONTROLS IN PLACE.
  - MONITORING OF ALL COMMITMENTS AND AT-RISK POSITION
  - VIGILANCE ON AT-RISK POSITION RELATIVE TO CRITICAL ISSUE RESOLUTION/NEW DECISION DATES
  - ASSURE THAT CRITICAL ISSUE RESOLVED OR POTENTIAL FOR RESOLUTION VERY HIGH BEFORE SUBSTANTIVE FINANCIAL EXPOSURE CONSIDERED
- [illegible]

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