STRATEGIC PETROLEUM RESERVE
PROJECT PROPOSAL
(M&O CONTRACTOR FORM)

SITE(S) AFFECTED: SJ
CONTRACTOR CHANGE NO.: 74007 | REV: 2
☒ ENGINEERING CHANGE
☐ OTHER (ADMIN/NON-ENGR CHNG)
ECP NO: SJ-M/O-4606R2

SECTION I - SUMMARY INFORMATION

TITLE: CONNECTION TO EXXON, SHIP SHOAL, AND TEXACO PIPELINES

SPONSOR: M. THOMPSON
ORG.: SHELL OIL
PHONE: 713-241-1937

FUNDING/SCHEDULE IMPACT — RECOMMENDED RANK: 07

SOURCE	TOTAL ESTIMATED COST	SCHEDULING	AUTHORITY
☐ SPR BLI	FY	☐ NO IMPACT	☐ PCCB ☐ CLASS I
☐ CONTRACTOR BASELINE	DESIGN	☐ NEW SCHEDULE REQ'D	☐ ECC ☐ CLASS II
☐ O&M	CONSTRUCTION/ IMPLEMENTATION	☐ SCHEDULE CHANGE REQ'D	☐ CONTRACTOR
☐ LE	TOTAL	☐ MILESTONE	FINAL DISPOSITION
☐ MM		☐ CMCR NO	☐ APPROVE
☐ OTHER			☐ CONDITIONAL APPROVAL
☐ BCR			☐ DISAPPROVE
			☐ CANCEL

SECTION II - DYNMcDERMOTT REVIEW AND APPROVAL (CLASS II)

REVIEWERS (NAME/ORG.)	CONCURRENCE YES	CONCURRENCE NO	COMMENTS
SITE MANAGER Bruce Tunnell	☑	☐	
SITE ENGINEER Tony Bonacci	☑	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

TRB CHAIRMAN	DATE	DISPOSITION	COMMENTS
		☐ CONCUR ☐ APPROVE ☐ DISAPP. ☐ CANCEL	IS Dm getting or maintaining as set of "AS Built" drawings? T. Garner
O&M PROJECTS COORDINATOR	DATE	DISPOSITION ☐ CONCUR ☐ APPROVE ☐ DISAPP. ☐ CANCEL	

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STRATEGIC PETROLEUM RESERVE

ENGINEERING CHANGE PROPOSAL

SUMMARY SHEET
CLASS I CHANGE

ECP NUMBER	TITLE
SJ-M/O-4606R2	Connection to Exxon, Ship Shoal, and Texaco Pipelines

BUDGET SOURCE

- ☐ SPR BLI _____
- ☐ CONTRACTOR BASELINE
- ☐ BCR
- ☐ OTHER _____

AUTHORITY

☒ PCCB ☐ ECC

SCHEDULE

☐ YES

MILESTONE NUMBER _____

CMCR NUMBER _____

☒ NO

TOTAL ESTIMATED COST OF CHANGE

	FY 98	FY	FY
DESIGN			
CONSTRUCTION / M&O	$100,000		
TOTAL	$100,000		

PCCB / ECC SIGNATURES	DISPOSITION: CONCUR	DISPOSITION: NON CONCUR	DISPOSITION: DATE	COMMENTS CONDITIONS / LIMITATIONS
DOE SENIOR SITE OFFICIAL	X 7/7/98			
APM TECHNICAL ASSURANCE	X		7/21/98	
APM SYSTEMS AND PROJECTS	✓		7/21/98	
APM MAINTENANCE AND OPERATIONS	✓		7/21/98	
DEPUTY PROJECT MANAGER				
DOE CMO				7/21/98
PROJECT MANAGER				
DEPUTY ASSISTANT SECRETARY-SPR				

PCCB / ECC ACTION

☑ FULL APPROVAL ☐ CONDITIONAL / LIMITED APPROVAL ☐ DISAPPROVAL

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STRATEGIC PETROLEUM RESERVE

WR #

ENGINEERING CHANGE PROPOSAL

ECP NUMBER	ECP TITLE	
SJ-M/0-4606 Revision 2	Connection to Exxon, Ship Shoal, and Texaco Pipelines	PAGE 1 OF 2

CONTRACTOR CHANGE NO./REV.	INITIATED BY	DATE	SUBMITTED BY	DATE
Rev. 2 74-007	M. L. Thompson	6/9/98	M. L. Thompson	6/9/98
PRIORITY	ORG./CONTRACTOR	PHONE NO.	ORG./CONTRACTOR	PHONE NO.
	Shell Oil	7132411937		

PRIORITY

- ☐ EMERGENCY
- ☐ URGENT
- ☒ ROUTINE

VALUE ENGINEERING	DRAWDOWN CRITICAL	ROM ESTIMATE
☐ VEP (MANDATORY)	☐ YES	$ 100,000
☐ VECP (VOLUNTARY)	☒ NO	

DESCRIPTION:

PROBLEM / EXISTING CONFIGURATION **This is a second revision to the previously approved ECP "Connection to Exxon, Ship Shoal, and Texaco Pipelines". Shell is planning to use the Bayou Choctaw meter skid at Sugarland for custody transfer measurement of oil from the Ship Shoal, Texaco, and Exxon pipelines at Capline. As configured, the meter skid does not meet API or Shell standards for custody transfer at the rates these pipelines deliver at.**

PROPOSED SOLUTION / ENHANCEMENT **Shell proposes to install a new 16" static mixer and sampling system in the line coming from Capline. This mixer and sampler are required to ensure an acurate sample is taken of the incoming oil stream. Also, Shell proposes to install a 20" double block and bleed valve in the inlet line to the Bayou Choctaw meter skid. This valve will be installed between the 30" Dock 2 (BC) header and the tie in point for the new line from Capline. This valve will allow for positive isolation of the incoming line from the rest of the terminal. This is needed to ensure all of the oil coming into the terminal is measured at the Bayou Choctaw meters. See the attached Line Up sheet for details.**

The new 20" valve will increase the pressure drop into the Bayou Choctaw meter skid by approximately 2 psi when receiving from Bayou Choctaw at the maximum drawdown rate.

REASON / JUSTIFICATION **This change is required to meet Shell and API custody transfer measurement standards.**

CI'S AFFECTED

TECHNCIAL ANALYSIS/RECOMMENDATION

IMPLEMENTATION METHOD

- ☐ SUBCONTRACT
- ☐ M&O LABOR (LOE)
- ☐ COMBINATION

ENGINEERING	DATE	DOE SSR	DATE	
M L Thompson	6/9/98	James M Green	7-7-98	☒ CONCUR ☐ NONCONCUR

D-655

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STRATEGIC PETROLEUM RESERVE
ENGINEERING CHANGE PROPOSAL
CONFIGURATION CHANGE AFFECTED REPORT

TO BE COMPLETED BY TECHNICAL REVIEW PROCESS, ENGINEERING AND CONFIGURATION MANAGEMENT ORGANIZATION DEFINED PROCESS

ECP NO.	CONTRACTOR CHANGE NO.	REV.	CHANGE CLASSIFICATION
	74007	2	☒ CLASS I ☐ CLASS II PAGE 2 OF

FUNCTIONS AFFECTED

YES/NO	ITEM
NO	LEVEL I ☐ LEVEL II ☐ CRITERIA
NO	PERFORMANCE CRITERIA
NO	RAM
NO	INTERFACE CHARACTERISTICS
NO	I/O POINTS
NO	DOE LEVEL I, II, III SCHEDULES
NO	GUARANTEES/DELIVERABLES
NO	SAFETY/ENV/FP (CIRCLE ONE)
NO	SECURITY REQUIREMENTS
~~NO~~ yes	OPCS SOFTWARE
NO	OPCS HARDWARE
NO	OPCS FIRMWARE
~~NO~~ yes	SETPOINTS/RANGES
NO	DIP SWITCH SETTINGS/JUMPERS
~~NO~~ yes	MASTER CI LIST
NO	WELLHEAD CONFIGURATION
~~NO~~ yes	SPARES/PROVISIONING REQUIREMENTS
NO	GOVERNMENT FURNISHED EQUIPMENT
NO	ENERGY USAGE
~~NO~~ yes	OPERATIONS MODELS
NO	OTHER

DOCUMENTS AFFECTED

YES/NO	ITEMS
	PIPING
~~NO~~ yes	101 - PROCESS FLOW DIAGRAMS
NO -	102 - MECHANICAL FLOW DIAGRAMS
~~NO~~ yes	103 - PIPING AND INSTRUMENTATION DIAGRAMS (P&ID'S)
NO	104 - UTILITY FLOW DIAGRAMS
~~NO~~ yes	105 - GENERAL PIPING PLANS
~~NO~~ yes	106 - AREA PLANS (MECHANICAL EQUIPMENT LOCATION)
NO	122 - WELL HEAD DRAWINGS
NO	123 – WELL COMPLETION CONFIGURATION DRAWINGS
~~NO~~ yes	130 - VALVE LIST
NO	135 - LINE LIST
~~NO~~ yes	140 - PSV LIST
NO	150 - STANDARDS
	CIVIL/STRUCTURAL
NO	201 - PLOT PLANS
NO	202 - SITE WORK: GRADING (ROUGH & FINISH) DRAIN FENCING
NO	210 - FOUNDATIONS: LOCATION PLANS
NO	216 - MINES (WEEKS ISLAND ONLY)
NO	250 - STANDARDS
	ELECTRICAL
NO	301 - AREA CLASSIFICATION
NO	302 - ONE LINE DIAGRAMS
NO	303 - SCHEMATIC DIAGRAMS
NO	304 - POWER PLANT AND DETAILS
NO	305 - LIGHTING PLANT AND DETAILS
NO	307 - SUBSTATION PLANS AND DETAILS
NO	308 - WIRING DIAGRAMS
NO	310 - GROUNDING
NO	311 - CONDUIT & CABLE SCHEDULES (INCLUDING INST.)
NO	313 - MCC/SWITCH GEAR EVALUATION & SCHEDULE

DOCUMENTS AFFECTED

YES/NO	ITEM
	ELECTRICAL (cont'd)
NO	315 - CATHODIC PROTECTION
NO	350 - STANDARDS
	INSTRUMENTATION
NO	401 - BLOCK DIAGRAM
~~NO~~ yes	402 - LOOP DIAGRAMS
~~NO~~ yes	403 - INSTRUMENT PLANS
NO	404 - INSTRUMENT WIRING DIAGRAM
~~NO~~ yes	409 - INSTRUMENT INDEX
NO	450 - STANDARDS
	MAPPING
NO	501 - ALIGNMENT SHEETS
NO	509 - PIPELINE DRWGS (MAINLINE VALVES, DRIPS, SCRAPER, TRAPS, ETC.)
NO	550 - STANDARDS
	ARCHITECTURAL
NO	720 - ELEVATIONS AND FLOOR PLANS
NO	750 - STANDARDS
	DOCUMENTATION
NO	900 - RESERVED
NO	901 - TECHNICAL/PERFORMANCE/DESIGN CRITERIA
~~NO~~ yes	910 - DESIGN DESCRIPTION/BASIS
NO	911 - PROCESS SET POINT DOCUMENTS
~~NO~~ yes	912 - EQUIPMENT LIST
NO	913 - MOV LIST
NO	915 - ELECTRICAL SAFETY
~~NO~~ yes	920 - I/O DOCUMENT
~~NO~~ yes	930 - OPERATIONS MANUALS
NO	930 - MAINTENANCE MANUALS
NO	950 - STANDARD SPECIFICATIONS
NO	970 - TASK SPECIFICATIONS
NO	990 - CONFIGURATION MANAGEMENT REPORTS/I.B.M.

COMMENTS:

ENGINEERING	DATE	CONFIGURATION MANAGEMENT	DATE
		[signature]	7/26/98

EH 7/29/98

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EH

STRATEGIC PETROLEUM RESERVE

ENGINEERING CHANGE PROPOSAL

SOFTWARE, HARDWARE, FIRMWARE CHANGE

CONTRACTOR CHANGE NUMBER	REVISION NUMBER	ECP NUMBER	PAGE
74007	2		3 OF

SOFTWARE CHANGE ANALYSIS	HARDWARE/SOFTWARE AFFECTED
This additional equipment will be added to the control system installed by Shell at the St. James Facility.	(NOTE: REDLINE CI BOM) CONFIGURATION of the CONTROL SYSTEM ~~IS MAN~~ Software is maintained by Shell Oil.

DISPOSITION OF PARTS

☐ REWORK SITE COMPONENTS ONLY ☐ REWORK ALL SITE COMPONENTS ☐ COMPONENTS NOT AFFECTED

☐ OTHER (DESCRIBE)

COMPONENT COMPATIBILITY (LIST COMPONENTS SEPARATELY IF COMPATIBILITY'S ARE DIFFERENT)

☐ INTERCHANGEABLE ☐ DRAWDOWN COMPATIBLE ☐ NONCOMPATIBLE

OPCS SUPPORT ENGINEER	DATE	FUNCTIONAL MANAGER	DATE
		Deborah S. Hofem	

IMPLEMENTATION / TEST COMMENTS

WITNESSED BY			DATE
TEST APPROVED BY	DATE	CHANGE RELEASE AUTHORITY	DATE

D-658

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LINEUP SHEETS
(Sheet 1 of 2)

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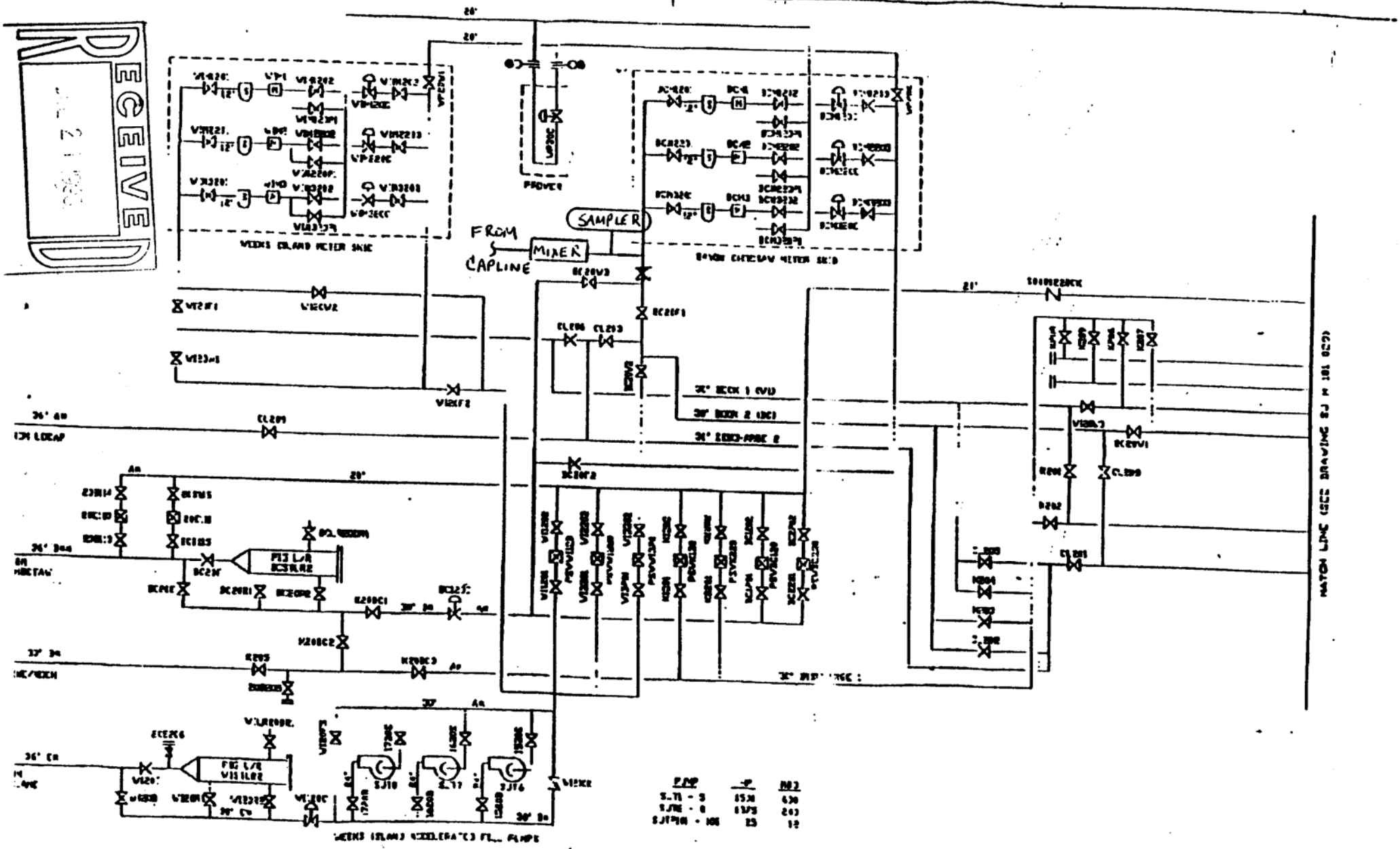

2	REVISED PER ECN 999.[illegible]	ESP	[illegible]	GAG	[illegible]	[illegible]
1	[illegible]	ESP	[illegible]	GAG	[illegible]	[illegible]
1	RELEASED FOR OPS MANUAL	ESP	[illegible]	[illegible]	[illegible]	[illegible]

SITE OPERATIONS MANUAL

CRUDE OIL
LINEUP SHEET

ST. JAMES TERMINAL

OFFICE OF ENGINEERING AND CONSTRUCTION

1C03B

PROCESS

NONE