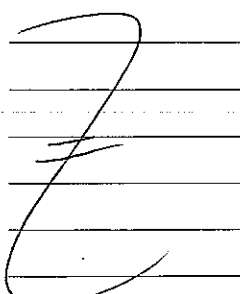

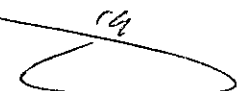


CUSTOMER REQUEST FORM (CRF)

END USER (KLIEN/PEMESAN)	NAME : Mr. Rachmat Kurniawan	REF. : WD-5009.
	DEPARTMENT : CICO.	DATE : 1 Maret 2013.
	POSITION : Construction Engineer.	OTHERS : -
JOB TITLE / DESCRIPTION (URAIAN/JUDUL PEKERJAAN)	Fabrication Spool Ataka Gas Lift Refurbishment. "Oscar"	
	Qty = 1 Lot.	
ORDER SCOPE (TIPE PEKERJAAN)	<input type="checkbox"/> DESIGN	Schedule : _____
	<input checked="" type="checkbox"/> DRAWING	Schedule : 07 MARET 2013
	<input checked="" type="checkbox"/> INSPECTION & TEST PLAN (ITP)	Schedule : 07 MARET - 10 MARET 2013
	<input type="checkbox"/> MATERIAL	Schedule : _____
	<input checked="" type="checkbox"/> FABRICATION	Schedule : 11 - 20 MARET 2013
	<input checked="" type="checkbox"/> TESTING	Schedule : 29 MARET 2013
	<input checked="" type="checkbox"/> BLASTING	Schedule : 29 - 30 MARET 13
	<input checked="" type="checkbox"/> PAINTING	Schedule : 29 - 31 MARET 13
	<input checked="" type="checkbox"/> INSTALLATION (WS/ON SITE)	Schedule : _____
	<input checked="" type="checkbox"/> DELIVERY Tg. Santan	Schedule : 1 APRIL 2013
<input type="checkbox"/> OTHERS	Schedule : _____	
DRAWING/SKETCH (GAMBAR/SKET)	Drawing by chevron.	
SUPPLIED MATERIAL (PENGADAAN MATERIAL)	Materials Supply by Chevron.	
OTHERS TERMS & CONDITION (INSTRUKSI PENTING LAINNYA)	- Ref. Drawing ATT-OP-5300. - BLASTING & PAINTING WHITE COLOR. - NDT & HYDROTEST.	

Internal Distribution :		Sign Received :	Prepared by :	CLIENT VERIFICATION (If Any) :
Project Manager	<input type="checkbox"/>			
Engineering	<input checked="" type="checkbox"/>			
Procurement	<input checked="" type="checkbox"/>			
Quality	<input checked="" type="checkbox"/>			
HSE	<input checked="" type="checkbox"/>			
PPIC / Planner	<input checked="" type="checkbox"/>			
HRD	<input type="checkbox"/>			
Maintenance	<input type="checkbox"/>			
File (Originator)	<input checked="" type="checkbox"/>			
			MUSLIMIN SANAFI Branch Manager	



FE&CP CONTRACT WORK ORDER FORM

Project Title:

FABRICATION,
INSTALLATION ATTAKA
OSCAR PLATFORM
REFURBISHMENT

Various

Proj.No.:

Contract No.:

Revision No.:

CW953714

Date: 1-Mar-13

CHEVRON INDONESIA COMPANY

WORK ORDER No.:

5.009

CONTRACTOR NAME:

PT. BUKAKA TEKNIK UTAMA

PROJECT MANAGER

RACHMAT KURNIAWAN

SOURCE OF FUNDING:

AFE/CC

: EK1100134-2258104

WORK LOCATION

NORTH AREA

PROPOSED WORK COMMENCEMENT DATE:

4-Mar-13

TO BE COMPLETED BY:

05-Jun-13

EXCEPT AS OTHERWISE EXPRESSLY PROVIDED HEREIN, CONTRACTOR HEREBY AGREES TO PERFORM THE BELOW DESCRIBED WORK IN ACCORDANCE WITH ALL OF THE TERMS AND CONDITIONS OF THE CONTRACT REFERENCED ABOVE. CONTRACTOR'S INVOICES MUST SHOW CHARGES FOR THIS WORK SEPARATELY IDENTIFIED BY BOTH THE WORK ORDER NUMBER AND CONTRACT NUMBER.

DESCRIPTION WORK:

Under CONSTRUCTION SUPPORT CALL OUT SERVICES Contract #CW953714

PT. BTU is requested to perform Fabrication, Installation for Ataka Oscar Platform Refurbishment

Description	Charge	Qty	Unit	Prices	Month	Sub Total	Total Cost
1 structures							
2 fabrication & installation							
3 NDT							
4 transportation							
5 personnel & equipment day rate as stated on approval GTR							
						Total Cost	
						Grand Total	

NOTE:

Price excludes taxes.

Enclosed are approval GTR

CONTRACTOR TO SUBMIT PRICE BREAKDOWN/ CTR BASED ON GIVEN WORK ACTIVITY AND WORK ORDER BUDGET

WORK ORDER BUDGET

PROPOSED PRICE OF THIS CONTRACT WORK ORDER (Please Breakdown Cost per Activity Listed on the Description above):

WORK ORDER SUMMARY:

ORIGINAL CONTRACT VALUE
REVISED CONTRACT VALUE (Amendment)
VALUE OF THIS WORK ORDER #
TOTAL WORK ORDER VALUE (Up to this WO)
BUDGET REMAINING

REVIEWED BY ORIGINATOR (1)

HERY LESMANA

DATE:

REVIEWED BY PROJECT MANAGER (2)

RACHMAT KURNIAWAN

DATE:

WO Request shall be signed by both (1) and (2)
then return to (FE&CP)ACCEPTED BY:
(CONTRACTOR)

DENNY JOHNNY K.H.

63 MAR 2013

DATE:

APPROVED BY AS PER DOA TABLE(4)

TITLE: TM CONSTRUCTION

DATE:

All CONTRACTOR WO Proposal is Contractually Binding with FE&CP Manager Approval

Doc. No.:

Procedure No.:

File No.:

LEHE/RZUN

Page

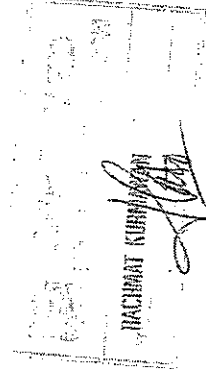
Contract File

COVER SHEET

JDE. WO. : 2258104

Refurbish Campaign (Gaslift line Modification)

ATTAKA - "0" PLATFORM



ATTAKA "O" PLATFORM

ATT-OP-4000-1
DRAWING No.



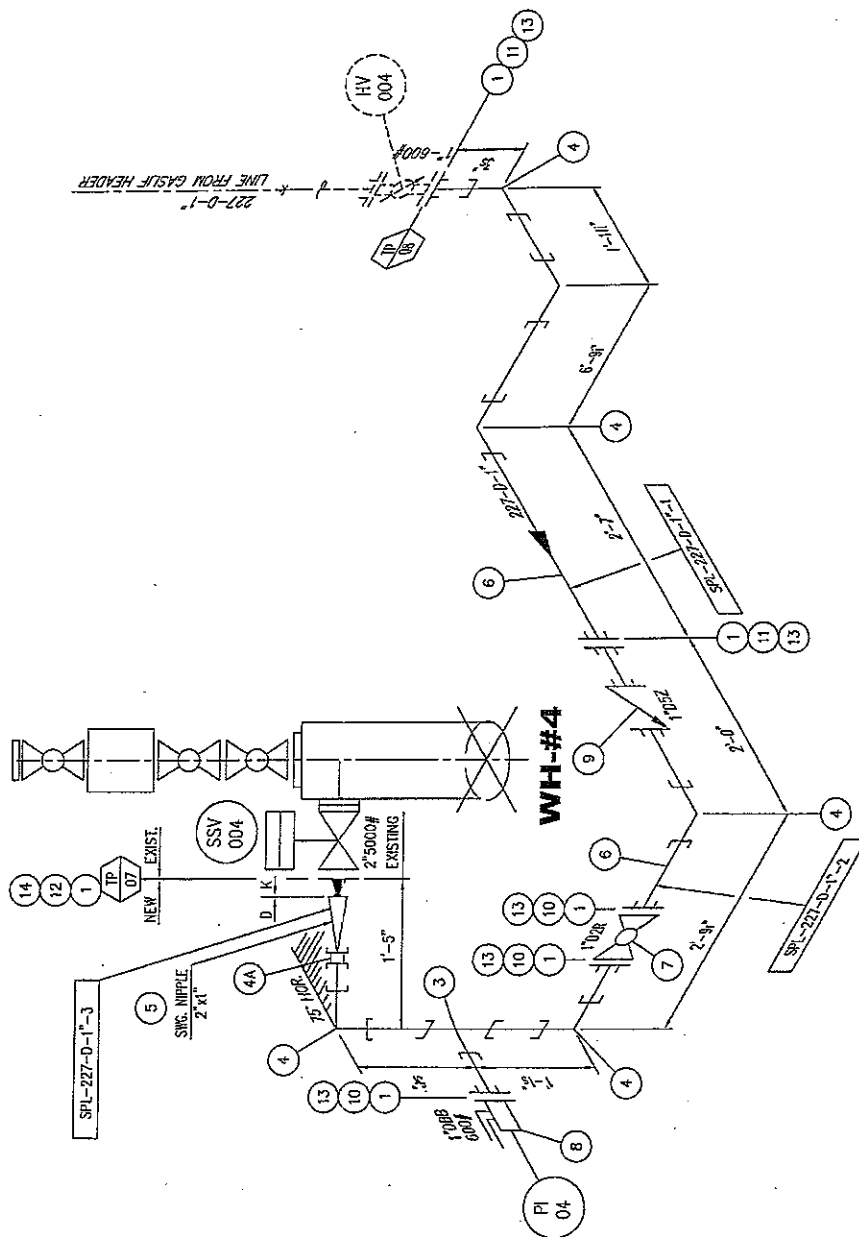
NOTES :		1		2		3		4		5		6		7		8		9		10	
		EXAMINEE NO.		REFERENCE DRAWINGS		KEY		DATE		BY		REVISION		<input checked="" type="checkbox"/> DRAWN BY <input type="checkbox"/> CHECKED BY <input type="checkbox"/> APPROVED BY		SCALE HTS		ATTAKA "0" PLATFORM ISOMETRIC DRAWINGS DRAWINGS INDEX		REV 223804 DRAWING NO. ATT-OP-4000-I	
																		223804 ATT-OP-4000-I			

MATERIAL LIST


ITEM	QTY	SIZE	SCH	DESCRIPTION
				FABRICATION
			80	FLANGE SW 600# RTJ, ASME B16.11 ASTM A-105
			XNS	FLANGE WN 5000API RTJ, API 6A, MATERIAL TYPE 6B, TYPE 4,
			3000PSI	EQUAL TEE SW, ASME B16.11 ASTM A-105
			3000PSI	ELBOW 90° SW, ASME B16.11 ASTM A-105
			3000PSI	ELBOW 90° SW, ASME B16.11 ASTM A-105
			3000PSI	FULL COUPLING SW, ASME B16.11 ASTM A-105
			80	SWAGE NIPPLE, (BLEPSES), ASTM B16.11, ASTM A-106
			80	PIPE API-5L-60LB OR ASTM A-106 GR.B SEAMLESS
				INSTALLATION
			~	BALL VALVE 600# FLANGE END RE (1"DBRE)
			~	DOUBLE BLOCK AND BLEED 600# RTJ, FLANGE (NO FLANGE TYPE)
			~	CHECK VALVE 600# SW, SWING TYPE (1"DBZ)
			1"600JRF	INSULATION GASKET
			1"600JRF	GASKET SPIRAL WOUND W/30SSS WINDING W/0.125" CENTERING CS CAD
			1"600JRF	PLTD. NON ASBESTOS FILLER FLEXITE SUPER OR EQUAL PER API, 90T
			2"5000API	FLANGE SW 600# RTJ, ASME B16.11 ASTM A-105
			2"5000API	FLANGE WN 5000API RTJ, API 6A, MATERIAL TYPE 6B, TYPE 4,
			2"5000API	ELBOW 90° SW, ASME B16.11 ASTM A-105
			2"5000API	ELBOW 90° SW, ASME B16.11 ASTM A-105
			2"5000API	FULL COUPLING SW, ASME B16.11 ASTM A-105
			2"5000API	SWAGE NIPPLE, (BLEPSES), ASTM B16.11, ASTM A-106
			2"5000API	PIPE API-5L-60LB OR ASTM A-106 GR.B SEAMLESS
			~	STEEL ANGLE ASTM A36
			~	UBOLT C/W NUTS FOR 1" PIPE

**APPROVED
FOR CONSTRUCTION**

WO.2258104



PIPE CODE	ASME B31.3	INSULATION	NIL
PIPE SPEC.	D	X-RAY	100 %
DESIGN PRESS. (PSI)	2025	MPI	100 %
DESIGN TEMP. (°F)	-25/200	HYDROTEST (PSI)	3080 Psig
PAINT SPECIFICATION	100-65-13	PWHT	-

 Chevron Indonesia Company BUKITPAPEN- EAST KALIMANTAN	DRAWING NO. ATT-op-5500		SHEET NO. 2 OF 2		REV 0
	TITLE ATTACK "O" PLATFORM ISOMETRIC GASLIFT LINE WH#-4 227-D-1"				
DESIGNED BY DATE CHECKED BY DATE APPROVED BY DATE APPROVED BY DATE	DRAWN BY DATE CHECKED BY DATE APPROVED BY DATE	DESIGNED BY DATE CHECKED BY DATE APPROVED BY DATE	DRAWN BY DATE CHECKED BY DATE APPROVED BY DATE	DESIGNED BY DATE CHECKED BY DATE APPROVED BY DATE	DRAWN BY DATE CHECKED BY DATE APPROVED BY DATE

NOTES :

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. WELD JOINTS WITH THICKNESS GREATER THAN SHALL BE STRESS RELIEVED.
3. PIPE SUPPORT FIELD ADJUSTMENT.

[illegible]

MATERIAL LIST

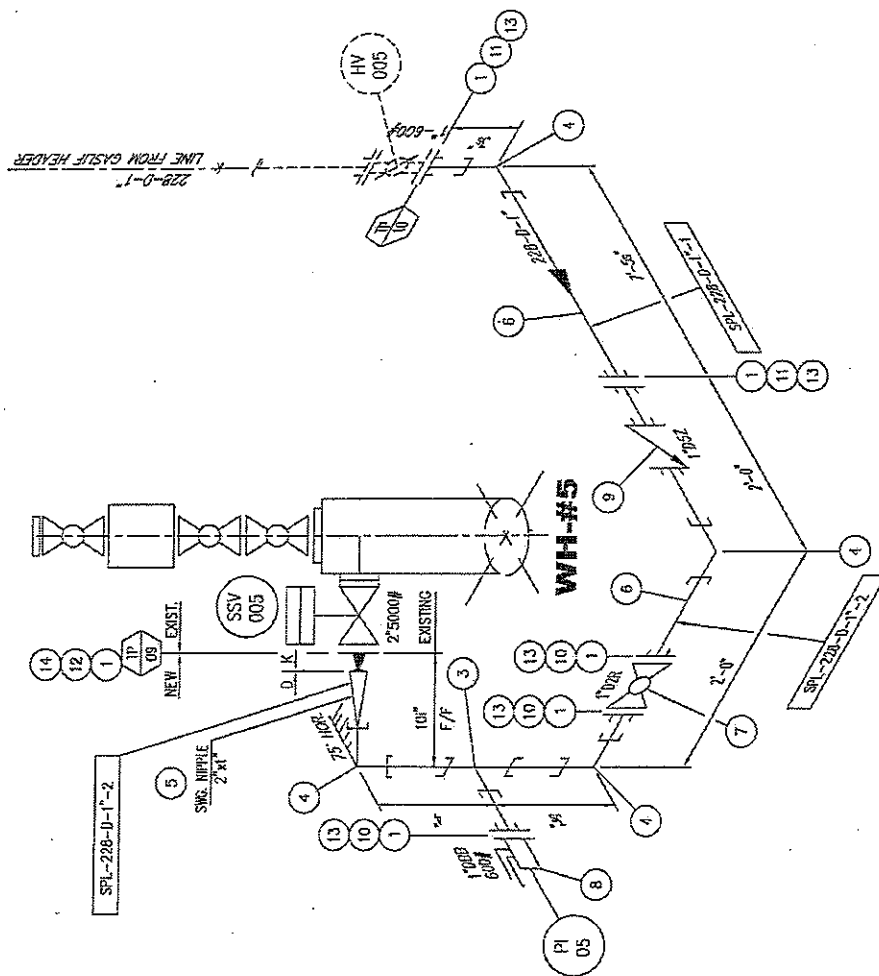
ITEM	QTY	SIZE	SCH	DESCRIPTION
A				
				FABRICATION
1	6 EA	1"	80	FLANGE SW 600# RF, ASTM B16.5 ASTM A-105
2	1 EA	2"	XXS	FLANGE WR 5000ATF R/L, API 6A, MATERIAL TYPE 8B, TYPE 4.
3	1 EA	1"	3000/PSI	EQUAL TEE SW, ASTM B16.11 ASTM A-105
4	1"	1"	3000/PSI	ELBOW 90° SW, ASTM B16.11 ASTM A-105
5	1 EA	2 1/4"	80	SWAGE NIPPLE , (BLEEPSE), ASTM B16.11 , ASTM A 108
6	20 FT	1"	80	PIPE API-SL GR-B OR ASTM A 108 GR-D SEAMLESS
INSTALLATION				
7	1 EA	1"	~	BALL VALVE 600# FLANGE END RF ("1/2)RF)
8	1 EA	1"	~	DOUBLE BLOCK AND BLEED 600# RF FLANGE (HORIZONTAL TYPE)
9	1 EA	1"	~	CHECK VALVE 600# SW, SWING TYPE ("1/2)S)
10	1 SET	1"	"6000PSI	INSULATION GASKET
11	4 EA	1/16" THK	"6000PSI	GASKET SPIRAL WOUND W/ 3/16"SS WINDING W/ 1/16" CENTERING CS AND PLTD, NON ASBESTOS FILLER FLOPTE SUPER OR EQUAL, PET API, 601
12	1 EA	R-24	"25000Psi	OVAL BRG/SOFT IRON CAD. PLTD MAX BIN 30 PER ASTM B16.20
13	20 EA	P-33	"1000PSI	STUD BOLTS ASTM A-193 CR 07, NUTS ASTM A-194 GR 2H CAD PLTD.
14	6 EA	F-55	"25000Psi	STUD BOLTS ASTM A-193 CR 07, NUTS ASTM A-194 GR 2H CAD PLTD.
MATERIAL PIPE SUPPORT				
15	6 FT	1 3/4-3	~	STEEL ANGLE ASTM A20
16	3 EA	1' 6"	~	UBOLT C/W NUTS FOR 1" 6" PIPE


APPROVED FOR CONSTRUCTION

THE

34

WO.2258104



PIPING CODE	ASME B.31.3	DATE	
PPHNG SPEC.	D	APPROVED BY	SIGNED
DESIGN PRESS. (PSI)	2025	09/11/20	
DESIGN TEMP. (°F)	-25/200	APPROVED BY	SIGNED
PAINT SPECIFICATION	UOL-CS-13	09/11/20	
 Chevron Indonesia Company BAKUPAKAN-PAK KALIMANTAN		APPROVED BY 09/11/20	
PIPING CODE PPHNG SPEC. DESIGN PRESS. (PSI) DESIGN TEMP. (°F) PAINT SPECIFICATION		DATE APPROVED BY SIGNED	
INSULATION X-RAY MPI HYDROTEST (PSI) PWHT		DATE APPROVED BY SIGNED	
RIL 100 % 100 % 3080 Paig -		DATE APPROVED BY SIGNED	

NOTES :
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS

OTHERWISE NOTED.

2. WELD JOINTS WITH THICKNESS GREATER THAN 0.75" SHALL BE STRESS RELIEVED.

3. PIPE SUPPORT FIELD ADJUSTMENT.

SALON

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

OTHERWISE

2. Wavelength

SALES

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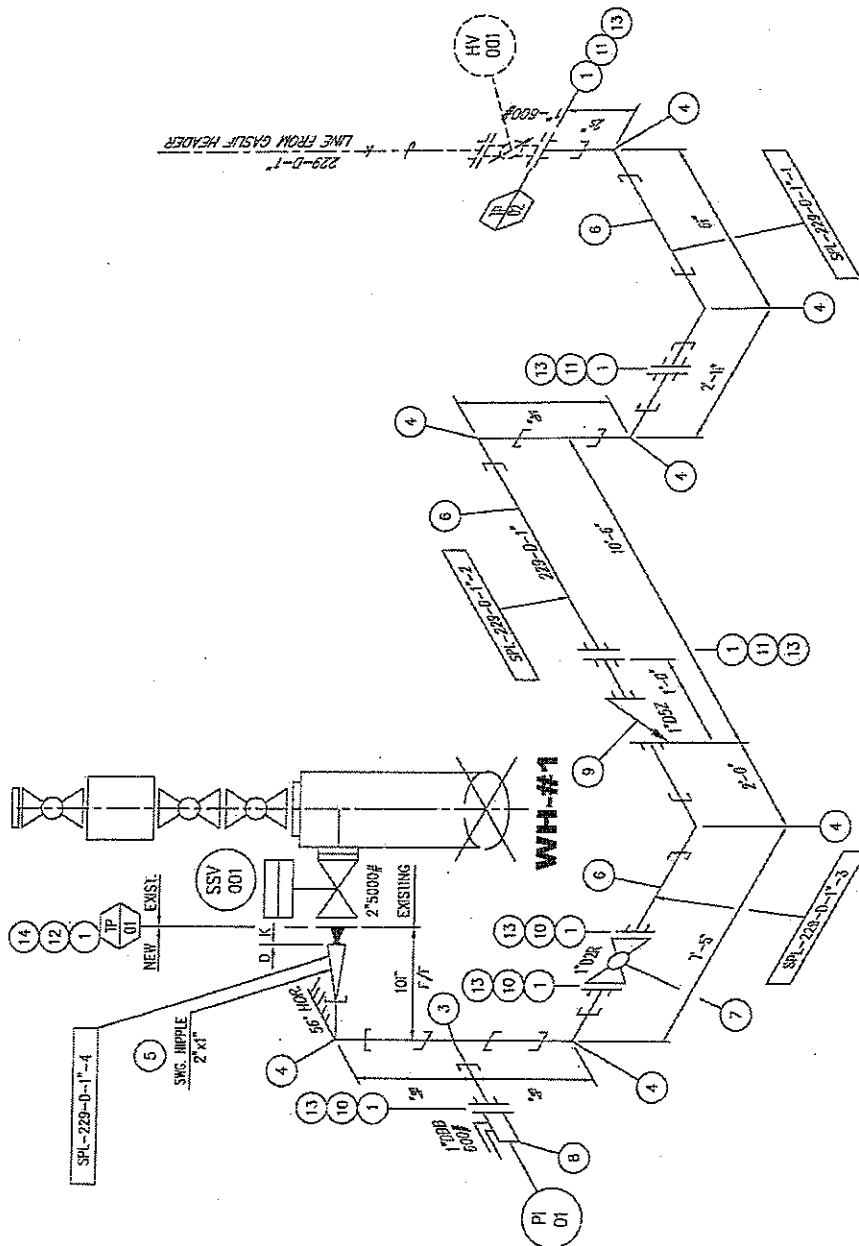
Address: _____
City: _____
State: _____
Zip: _____

MATERIAL LIST

| ITEM | QTY | SIZE | SCH | DESCRIPTION |
|------|-------|-----------|------------|---|
| 1 | 8 EA | 1" | 80 | FLANGE SW 600# RT, ASME B16.5 ASTM A-105 |
| 2 | 1 EA | 2" | XXS | FLANGE WN 5000API RT, API 6A MATERIAL TYPE 6B, TYPE 4. |
| 3 | 1 EA | 1" | 3000PSI | EQUAL TEE SW, ASME B16.11 ASTM A-105 |
| 4 | 5 EA | 1" | 3000PSI | ELBOW 90° SW, ASME B16.11 ASTM A-105 |
| 5 | 1 EA | 2"x1" | 80 | SWAGE NIPPLE, (BLEPSC), ASTM B16.11, ASTM A-106 |
| 6 | 20 FT | 1" | 80 | PIPE API-8B-GRB OR ASTM A-106 GRB SEAMLESS |
| 7 | 1 EA | 1" | ~ | INSTALLATION |
| 8 | 1 EA | 1" | ~ | BALL VALVE 600# FLANGE END RT (1D2RF) |
| 9 | 1 EA | 1" | ~ | DOUBLE BLOCK AND BLEED 600# RT FLANGE (NOIRFLANGE TYPE) |
| 10 | 1 SET | 1" | ~ | CHECK VALVE 600# SW, SWING TYPE (1D2RT) |
| 11 | 5 EA | 0.05" THK | 1" 600# RT | INSULATION GASKET |
| 12 | 1 EA | R-24 | 2" 5000API | GASKET SPIRAL WOUND W/216SSS WINDING W/1025' CENTERING CS GAD |
| 13 | 24 EA | 0.31" | 1" 600# RT | PLTD. NON ASBESTOS FILLER FLEXITE SUPER OR EQUAL PER API 601 |
| 14 | 8 EA | 1"x6" | 2" 5000API | STUD BOLTS ASTM A-193 GR B7, NUTS ASTM A-194 GR 2H CND PLTD. |
| 15 | 6 FT | 1.3x3 | ~ | STEEL ANGLE ASTM A36 |
| 16 | 3 EA | 7/8" | ~ | UDOLT C/N NUTS FOR 1" PIPE |

**APPROVED
FOR CONSTRUCTION**

WO.2258104



- NOTES :**
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
 2. WELD JOINTS WITH THICKNESS GREATER THAN 0.75" SHALL BE STRESS RELIEVED.
 3. PIPE SUPPORT FIELD ADJUSTMENT.

| REVISION | DATE | BY | CHKD | APPD |
|----------|----------|----|------|------|
| 1 | 21-12-11 | MD | ACE | PK |
| 2 | 20-11-11 | MD | ACE | PK |
| 3 | 20-11-11 | MD | ACE | PK |
| 4 | 20-11-11 | MD | ACE | PK |
| 5 | 20-11-11 | MD | ACE | PK |
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| 8 | 20-11-11 | MD | ACE | PK |
| 9 | 20-11-11 | MD | ACE | PK |
| 10 | 20-11-11 | MD | ACE | PK |
| 11 | 20-11-11 | MD | ACE | PK |
| 12 | 20-11-11 | MD | ACE | PK |
| 13 | 20-11-11 | MD | ACE | PK |
| 14 | 20-11-11 | MD | ACE | PK |
| 15 | 20-11-11 | MD | ACE | PK |
| 16 | 20-11-11 | MD | ACE | PK |

| REVISION | DATE | BY | CHKD | APPD |
|----------|----------|----|------|------|
| 1 | 21-12-11 | MD | ACE | PK |
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| 9 | 20-11-11 | MD | ACE | PK |
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| 11 | 20-11-11 | MD | ACE | PK |
| 12 | 20-11-11 | MD | ACE | PK |
| 13 | 20-11-11 | MD | ACE | PK |
| 14 | 20-11-11 | MD | ACE | PK |
| 15 | 20-11-11 | MD | ACE | PK |
| 16 | 20-11-11 | MD | ACE | PK |

| REVISION | DATE | BY | CHKD | APPD |
|----------|----------|----|------|------|
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| 14 | 20-11-11 | MD | ACE | PK |
| 15 | 20-11-11 | MD | ACE | PK |
| 16 | 20-11-11 | MD | ACE | PK |

| REVISION | DATE | BY | CHKD | APPD |
|----------|----------|----|------|------|
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| 15 | 20-11-11 | MD | ACE | PK |
| 16 | 20-11-11 | MD | ACE | PK |

| REVISION | DATE | BY | CHKD | APPD |
|----------|----------|----|------|------|
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| 11 | 20-11-11 | MD | ACE | PK |
| 12 | 20-11-11 | MD | ACE | PK |
| 13 | 20-11-11 | MD | ACE | PK |
| 14 | 20-11-11 | MD | ACE | PK |
| 15 | 20-11-11 | MD | ACE | PK |
| 16 | 20-11-11 | MD | ACE | PK |

| REVISION | DATE | BY | CHKD | APPD |
|----------|----------|----|------|------|
| 1 | 21-12-11 | MD | ACE | PK |
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| REVISION | DATE | BY | CHKD | APPD |
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| 1 | 21-12-11 | MD | ACE | PK |
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| REVISION | DATE | BY | CHKD | APPD |
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| 1 | 21-12-11 | MD | ACE | PK |
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| 16 | 20-11-11 | MD | ACE | PK |

| REVISION | DATE | BY | CHKD | APPD |
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| 16 | 20-11-11 | MD | ACE | PK |

| REVISION | DATE | BY | CHKD | APPD |
|----------|----------|----|------|------|
| 1 | 21-12-11 | MD | ACE | PK |
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| 15 | 20-11-11 | MD | ACE | PK |
| 16 | 20-11-11 | MD | ACE | PK |

| REVISION | DATE | BY | CHKD | APPD |
|----------|----------|----|------|------|
| 1 | 21-12-11 | MD | ACE | PK |
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| REVISION | DATE | BY | CHKD | APPD |
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| 1 | 21-12-11 | MD | ACE | PK |
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| REVISION | DATE | BY | CHKD | APPD |
|----------|----------|----|------|------|
| 1 | 21-12-11 | MD | ACE | PK |
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| REVISION | DATE | BY | CHKD | APPD |
|----------|----------|----|------|------|
| 1 | 21-12-11 | MD | ACE | PK |
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| 14 | 20-11-11 | MD | ACE | PK |
| 15 | 20-11-11 | MD | ACE | PK |
| 16 | 20-11-11 | MD | ACE | PK |

| | | |
|-------------|------------------------------|-----|
| TITLE | ATTAKA "O" PLATFORM | REV |
| | ISOMETRIC GASLIFT LINE WH#-1 | |
| | 229-D--1" | |
| DRAWING NO. | SHEET NO. | |

MATERIAL LIST

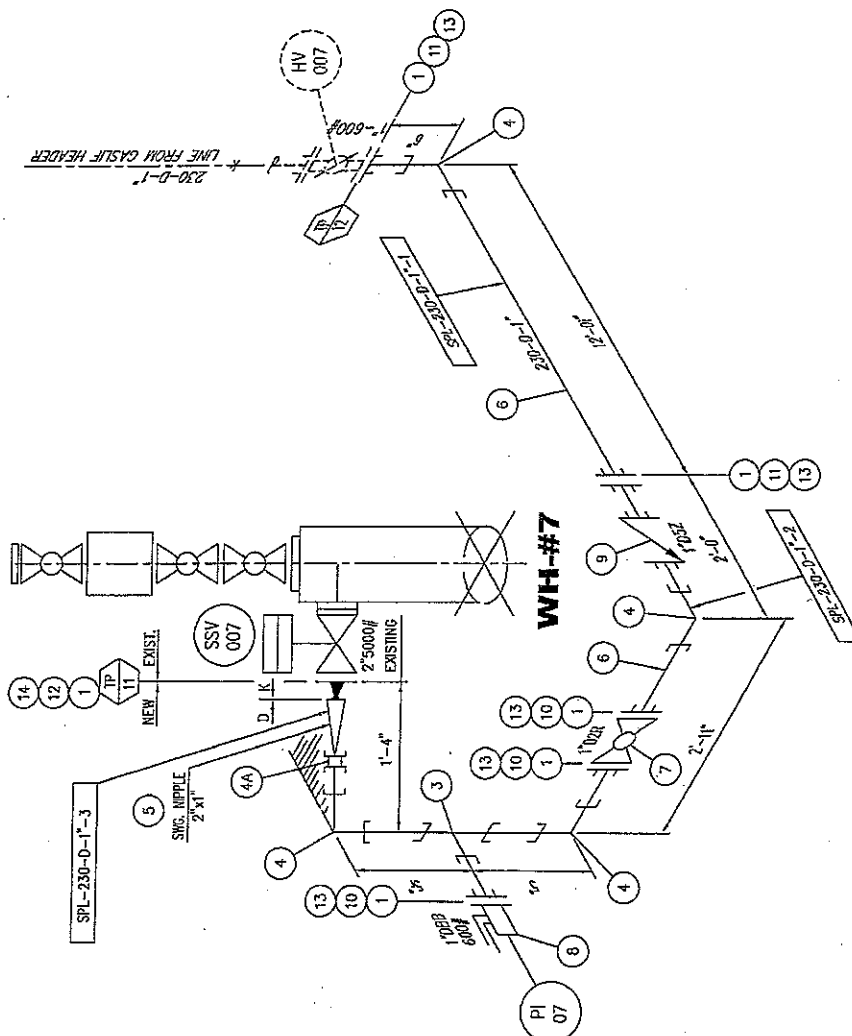
| ITEM | QTY | SIZE | SCH | DESCRIPTION |
|-----------------------|-------|------------------|---------|--|
| FABRICATION | | | | |
| 1 | 8 EA | 1" | 80 | FLANGE SW 600# RF, ASME B16.5 ASTM A-105 |
| 2 | 1 EA | 2" | XNS | FLANGE W/ 5000API RTJ, API 6A, MATERIAL TYPE 6B, TYPE 4. |
| 3 | 1 EA | 1" | 3000PSI | EQUAL TEE SW, ASME B16.11 ASTM A-105 |
| 4 | 4 EA | 1" | 3000PSI | ELBOW 90° SW, ASME B16.11 ASTM A-105 |
| 4A | 1 EA | 1" | 3000PSI | FULL COUPLING SW, ASME B16.11 ASTM A-105 |
| 5 | 1 EA | 2"x1" | 80 | SWAGE NIPPLE (ELFAPSE), ASTM B16.11, ASTM A105 |
| 6 | 20 FT | 1" | 80 | PIPE API-5L-GRB OR ASTM A106 GRB SEAMLESS |
| INSTALLATION | | | | |
| 7 | 1 EA | 1" | ~ | BALL VALVE 600# FLANGE END RF (1728R) |
| 8 | 1 EA | 1" | ~ | DOUBLE BLOCK AND BLEED BODY RF, FLANGE (NONPLATE TYPE) |
| 9 | 1 EA | 1" | ~ | CHECK VALVE 600# SW, SWING TYPE (1705Z) |
| 10 | 1 SET | 1" | 1760URF | INSULATION GASKET |
| 11 | 4 EA | 0.157THK 1760URF | | GASKET SPIRAL WOUND W/316SS WINDING W/316S CENTERING CS CAD |
| 12 | 1 EA | R-24 | 2500API | FLTD. NON ASBESTOS FILLER FLEXITE SUPER OR EQVAL, PER API, 601 |
| 13 | 20 EA | P-33 | 1760URF | STUD BOLTS ASTM A-193 GR B7, NUTS ASTM A-194 GR 2H CAD PLTD. |
| 14 | 8 EA | 1755 | 2500API | STUD BOLTS ASTM A-193 GR B7, NUTS ASTM A-194 GR 2H CAD PLTD. |
| MATERIAL PIPE SUPPORT | | | | |
| 15 | 6 FT | L3x3 | ~ | STEEL ANGLE ASTM A36 |
| 16 | 3 EA | 176 | ~ | UBOLT C/W NUTS FOR 1" PIPE |

**APPROVED
FOR CONSTRUCTION**

RACHAAT PERMANAN

BY :

WO.2258104



- NOTES :
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
 2. WELD JOINTS WITH THICKNESS GREATER THAN 0.75" SHALL BE STRESS RELIEVED.
 3. PIPE SUPPORT FIELD ADJUSTMENT.

| DATE | BY | CHKD | APPD |
|----------|----|------|------|
| 01-12-11 | MC | MC | MC |
| 01-12-11 | MC | MC | MC |
| 01-12-11 | MC | MC | MC |
| 01-12-11 | MC | MC | MC |

| DATE | BY | CHKD | APPD |
|----------|----|------|------|
| 01-12-11 | MC | MC | MC |
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| DATE | BY | CHKD | APPD |
|----------|----|------|------|
| 01-12-11 | MC | MC | MC |
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| DATE | BY | CHKD | APPD |
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| 01-12-11 | MC | MC | MC |
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| DATE | BY | CHKD | APPD |
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| DATE | BY | CHKD | APPD |
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| DATE | BY | CHKD | APPD |
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| 01-12-11 | MC | MC | MC |
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| DATE | BY | CHKD | APPD |
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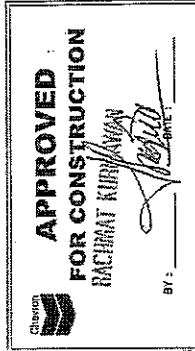
| DATE | BY | CHKD | APPD |
|----------|----|------|------|
| 01-12-11 | MC | MC | MC |
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| DATE | BY | CHKD | APPD |
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| 01-12-11 | MC | MC | MC |
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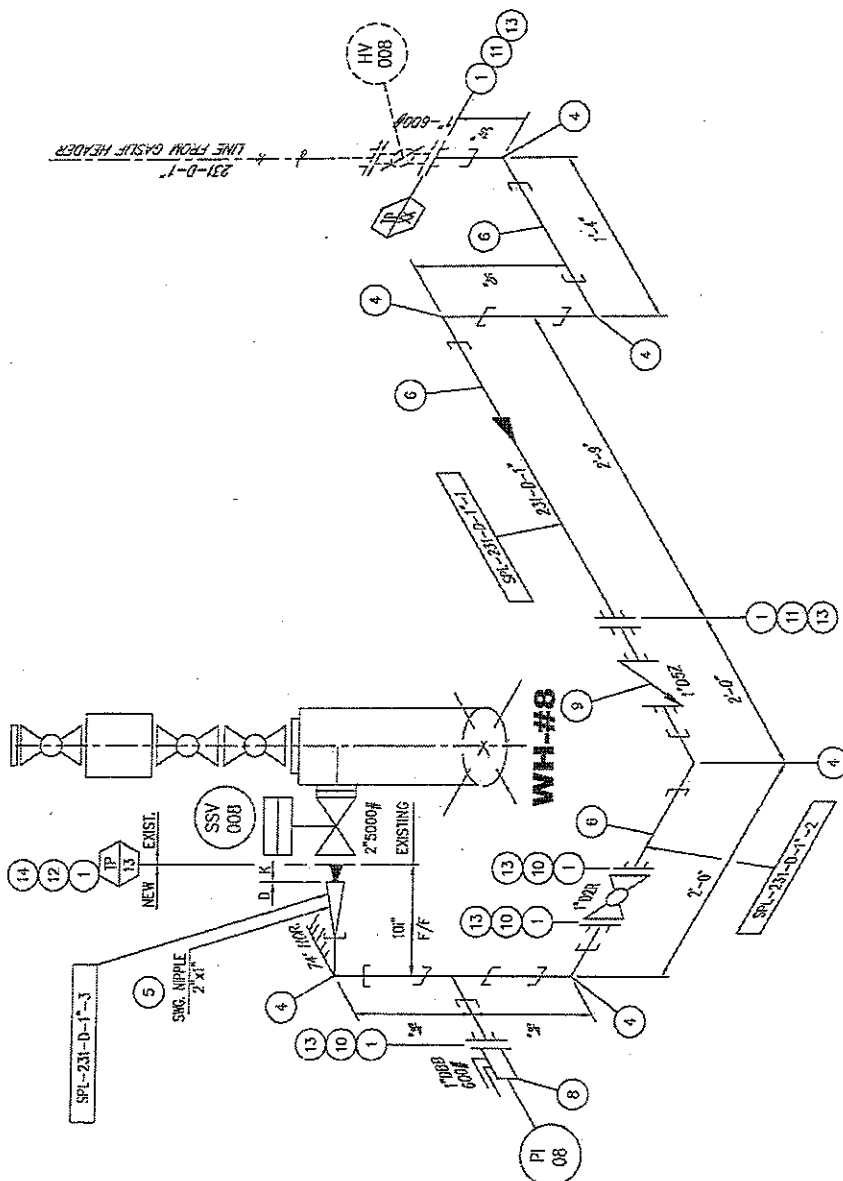
| DATE | BY | CHKD | APPD |
|----------|----|------|------|
| 01-12-11 | MC | MC | MC |
| 01-12-11 | MC | MC | MC |
| 01-12-11 | MC | MC | MC |
| 01-12-11 | MC | MC | MC |

MATERIAL LIST

| ITEM | QTY | SIZE | SCH | DESCRIPTION |
|------------------------|-------|----------|-----------|--|
| FABRICATION | | | | |
| 1 | 6 EA | 1" | 80 | FLANGE SW 600# RF, ASME B16.5 ASTM A-105 |
| 2 | 1 EA | 2" | XNS | FLANGE WR 5000PSI RTJ, API 6A MATERIAL TYPE 6B, TYPE 4 |
| 3 | 1 EA | 1" | 3000PSI | EQUAL TEE SW, ASME B16.11 ASTM A-105 |
| 4 | 6 EA | 1" | 3000PSI | ELBOW 90° SW, ASME B16.11 ASTM A-105 |
| 5 | 1 EA | 2"x1" | 80 | SWAGE NIPPLE, (BLEAPSE), ASTM B16.11, ASTM A-105 |
| 6 | 20 FT | 1" | 80 | PIPE API-5L-GRB OR ASTM A-105 GRB SEAMLESS |
| INSTALLATION | | | | |
| 7 | 1 EA | 1" | ~ | BALL VALVE 600# FLANGE END RF (1"20RF) |
| 8 | 1 EA | 1" | ~ | DOUBLE BLOCK AND BLEED 600# RF, RANGE (MONOFANGE TYPE) |
| 9 | 1 EA | 1" | ~ | CHECK VALVE 600# SW, SWING TYPE (1"20RF) |
| 10 | 1 SET | 1" | 1"600RF | INSULATION CASSET |
| 11 | 4 EA | 0.75"THK | 1"600RF | GASKET SPIRAL WOUND W/316SS WINDING W/0.125" CENTERING CS OAD PLTD, NON ASBESTOS FILLER (LEXIE SUPER OR EQUAL PER APL 001) |
| 12 | 1 EA | R-24 | 2"5000PSI | OVAL RINGS/ST IRON CAD. PLTD MAX RIN 90 PER ASME B16.20 |
| 13 | 20 EA | 1"30" | 1"600RF | STUD BOLTS ASTM A-193 GR 07, NUTS ASTM A-194 GR 2H OAD PLTD. |
| 14 | 8 EA | 1"55" | 2"5000PSI | STUD BOLTS ASTM A-193 GR 07, NUTS ASTM A-194 GR 2H OAD PLTD. |
| MATERIAL PIPE, SUPPORT | | | | |
| 15 | 6 FT | L3x3 | ~ | STEEL ANGLE ASTM A36 |
| 16 | 3 EA | 1"8 | ~ | URQAT C/W NUTS FOR 1"8 PIPE |



WO.2258104



- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
 2. WELD JOINTS WITH THICKNESS GREATER THAN 0.75" SHALL BE STRESS RELIEVED.
 3. PIPE SUPPORT FIELD ADJUSTMENT.

| REV | DATE | BY | CHKD | DESCRIPTION |
|-----|----------|-----|------|---------------------------|
| 3 | 23-12-11 | WJL | ER | APPROVED FOR CONSTRUCTION |
| 2 | 30-11-11 | WJL | ON | ISSUED FOR APPROVAL |
| 1 | 25-11-11 | WJL | RC | ISSUED FOR COMMENT |
| A | 22-10-11 | WJL | IL | ISSUED FOR COMMENT |

| | | | |
|--|-------------|-----------------|------------|
| PIPING CODE | ASME B.31.3 | INSULATION | NIL |
| PIPING SPEC. | 0 | X-RAY | 100 % |
| DESIGN PRESS. (PSI) | 2025 | MPI | 100 % |
| DESIGN TEMP. (F) | -25/200 | HYDROTEST (PSI) | 3080 Psi |
| PAINT SPECIFICATION | UOI-CS-13 | PHWT | - |
| Chevron Indonesia Company
BAKUPAH-EAST KALAHANTAN
TITLE: ATAKA "O" PLATFORM
ISOMETRIC GAS/LIFT LINE WH-8
231-D-1" | | | |
| DATE | 22/01/2021 | APPROVED BY | DATE |
| DRAWN BY | WJL | CHECKED BY | DATE |
| DESIGNED BY | WJL | APPROVED BY | DATE |
| DATE | 22-01-2021 | DATE | 22/01/2021 |
| PROJECT NO. | ATT-OP-5500 | SHEET NO. | 2 OF 2 |
| DRAWING NO. | ATT-OP-5500 | DATE | 22/01/2021 |



DESCRIPTION

10/1/19

100

NOTES:

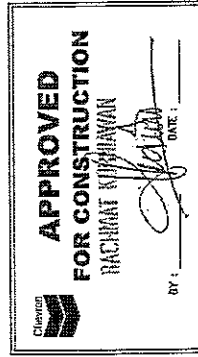
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. WELD JOINTS WITH THICKNESS GREATER THAN 0.75" SHALL BE STRESS RELIEVED.
3. PIPE SUPPORT FIELD ADJUSTMENT.

1. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.

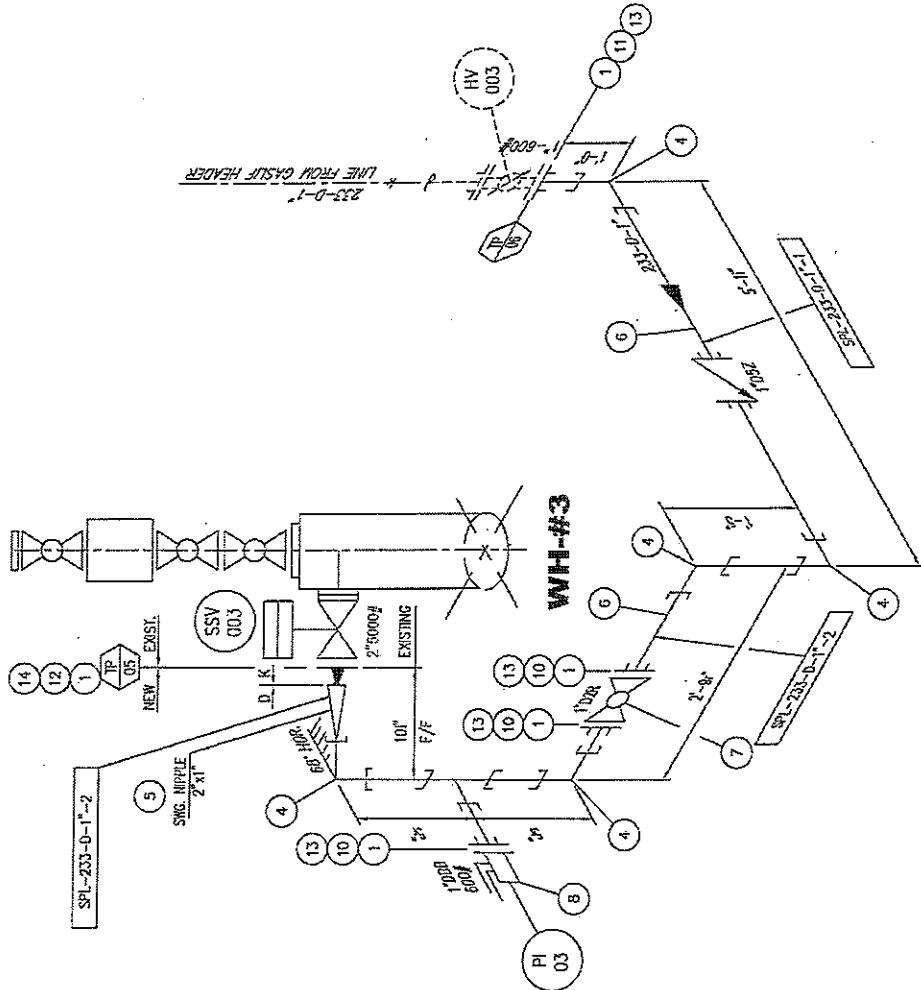
1. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.

MATERIAL LIST

| ITEM | QTY | SIZE | SCH | DESCRIPTION | FABRICATION |
|-----------------------|-------|-----------|----------|---|-------------|
| 1 | 4 EA | 1" | 80 | FLANGE SW 600# RF, ASME B16.5 ASTM A-105 | |
| 2 | 1 EA | 2" | XVS | FLANGE WN 5000#P RT, API 6A MATERIAL TYPE 0B, TYPE 4, | |
| 3 | 1 EA | 1" | 3000PSI | EQUAL TEE SW, ASME B16.11 ASTM A-105 | |
| 4 | 5 EA | 1" | 3000PSI | ELBOW 90° SW, ASME B16.11 ASTM A-105 | |
| 5 | 1 EA | 2 1/4" | 80 | SWAGE NIPPLE, (BLEWSE), ASTM B16.11, ASTM A.106 | |
| 6 | 20 FT | 1" | 80 | PIPE API-5L-GRB OR ASTM A.106 GRB SEAMLESS | |
| INSTALLATION | | | | | |
| 7 | 1 EA | 1" | ~ | BALL VALVE 600# FLANGE END RF (1"DRIF) | |
| 8 | 1 EA | 1" | ~ | DOUBLE BLOCK AND BLEED 600# RF, FLANGE (MONORANGE TYPE) | |
| 9 | 1 EA | 1" | ~ | CHECK VALVE 600# SW, SWING TYPE (1"DRIF) | |
| 10 | 1 SET | 1" | 1"600RF | INSULATION GASKET | |
| 11 | 3 EA | 0.175 THK | 1"600RF | GASKET SPIRAL WOUND W/3105S WINDING W/0.125" CENTERING CS AND PLTD. NON ASBESTOS FILLER FLEXITE SUPER OR EQUAL PER API, 601 | |
| 12 | 1 EA | R-24 | 2"3000RF | OWAL RING-SERT IRON CBL. PLTD MAX DIA 9.0 PER ASME B16.20 | |
| 13 | 20 EA | P 30" | 1"600RF | STUD BOLTS ASTM A-193 OR B7, NUTS ASTM A-194 GR 2H 60D PLD. | |
| 14 | 8 EA | 1 1/2" | 2"3000RF | STUD BOLTS ASTM A-193 OR B7, NUTS ASTM A-194 GR 2H 60D PLD. | |
| MATERIAL PIPE SUPPORT | | | | | |
| 15 | 6 FT | 3.2x3 | ~ | STEEL ANGLE ASTM A36 | |
| 16 | 3 EA | 1"φ | ~ | UBOLT C/YE NUTS 1 1/2" PIPE | |



WO.2258104



| | | | |
|---------------------|-------------|----------------|-----------|
| PIPING CODE | ASME B.31.3 | INSULATION | NIL |
| PIPING SPEC. | D | X-RAY | 100 % |
| DESIGN PRESS. (PS) | 2025 | MPI | 100 % |
| DESIGN TEMP. (F) | -25/200 | HYDROTEST (PS) | 3080 Psig |
| PAINT SPECIFICATION | UOL-CS-13 | PHWT | - |

TITLE ATTAKA "O" PLATFORM
ISOMETRIC GASLIFT LINE WH#-3
233-O-1"

| | | | | | |
|---|--------------|-------------|------------------|-------------|------|
| Chevron Indonesia Company
BALIKPAPAN-EAST SUMATRAH | | | | | |
| | DRAWN BY | CHECKED BY | DATE | APPROVED BY | DATE |
| | | | | | |
| ISO REF. | A.T.-OP-4500 | REV NO. | | | |
| | | SHEET NO. | 2 OF 2 | | |
| | | DRAWING NO. | ATT-OP-5560 | | |
| | | | NO. IN. : 222604 | | |

| | | | | | | | | | |
|--|--|------|----------|-----|----|--------|----|---------------------------|----|
| NOTES: | | DATE | | BY | | REVIEW | | APPROVED FOR CONSTRUCTION | |
| 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. | | | | | | | | | |
| 2. WELD JOINTS WITH THICKNESS GREATER THAN 0.75" SHALL BE STRENGTH RELIEVED. | | | | | | | | | |
| 3. PIPE SUPPORT FIELD ADJUSTMENT. | | | | | | | | | |
| REVISIONS | | REV | DATE | BY | UT | UT | UT | UT | UT |
| 1. 27-10-11 | | 1 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 2. 27-10-11 | | 2 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 3. 27-10-11 | | 3 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 4. 27-10-11 | | 4 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 5. 27-10-11 | | 5 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 6. 27-10-11 | | 6 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 7. 27-10-11 | | 7 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 8. 27-10-11 | | 8 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 9. 27-10-11 | | 9 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 10. 27-10-11 | | 10 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 11. 27-10-11 | | 11 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 12. 27-10-11 | | 12 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 13. 27-10-11 | | 13 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 14. 27-10-11 | | 14 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 15. 27-10-11 | | 15 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 16. 27-10-11 | | 16 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 17. 27-10-11 | | 17 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 18. 27-10-11 | | 18 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 19. 27-10-11 | | 19 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 20. 27-10-11 | | 20 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 21. 27-10-11 | | 21 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 22. 27-10-11 | | 22 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 23. 27-10-11 | | 23 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 24. 27-10-11 | | 24 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 25. 27-10-11 | | 25 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 26. 27-10-11 | | 26 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 27. 27-10-11 | | 27 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 28. 27-10-11 | | 28 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 29. 27-10-11 | | 29 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 30. 27-10-11 | | 30 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 31. 27-10-11 | | 31 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 32. 27-10-11 | | 32 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 33. 27-10-11 | | 33 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 34. 27-10-11 | | 34 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 35. 27-10-11 | | 35 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 36. 27-10-11 | | 36 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 37. 27-10-11 | | 37 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 38. 27-10-11 | | 38 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 39. 27-10-11 | | 39 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |
| 40. 27-10-11 | | 40 | 27-10-11 | WOL | UT | WOL | UT | WOL | UT |