

ภาคผนวก

ภาคผนวก ก
ใบรายงานผลการวิเคราะห์

คุณภาพอากาศในบรรยากาศ

ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : BAN AO UDOM
SAMPLE TYPE : AMBIENT
SAMPLING DATE : *, **, ***
SAMPLING TIME : *, **, ***
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIET
ANALYZED BY : MISS JETJARIN TUMSA-AT
RECEIVED DATE : NOVEMBER 17, 2022
ANALYTICAL DATE : NOVEMBER 17-23, 2022
REPORT NO. : 2022-U093661
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0008 - T22AW987-0010

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | | |
|------------------------------|-------------------|----------------------------------|--------------------|---------------------|----------------------|
| | | | BAN AO UDOM | | |
| | | | * T22AW987-0008 | ** T22AW987-0009 | *** T22AW987-0010 |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.105 | 0.096 | 0.088 |
| PARTICULATE MATTER (≤ 10 µm) | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.043 | 0.033 | 0.035 |
| SAMPLE CONDITION | | | COMPLETE | COMPLETE | COMPLETE |

REMARK

TSP, PM10 : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
TSP : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX B.
PM10 : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX J.
* : SAMPLING FROM 09:30 HOUR ON NOVEMBER 10, 2022 TO 09:30 HOUR ON NOVEMBER 11, 2022.
** : SAMPLING FROM 09:30 HOUR ON NOVEMBER 11, 2022 TO 09:30 HOUR ON NOVEMBER 12, 2022.
*** : SAMPLING FROM 09:30 HOUR ON NOVEMBER 12, 2022 TO 09:30 HOUR ON NOVEMBER 13, 2022.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR

NOVEMBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : BAN AO UDOM
SAMPLE TYPE : AMBIENT
SAMPLING DATE : * * * * *
SAMPLING TIME : * * * * *
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIET
ANALYZED BY : MISS JETJARIN TUMSA-AT
RECEIVED DATE : NOVEMBER 17, 2022
ANALYTICAL DATE : NOVEMBER 17-23, 2022
REPORT NO. : 2022-U093662
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0011 - T22AW987-0014

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | | | |
|------------------------------|-------------------|----------------------------------|---------------|---------------|---------------|---------------|
| | | | BAN AO UDOM | | | |
| | | | * | ** | *** | **** |
| | | | T22AW987-0011 | T22AW987-0012 | T22AW987-0013 | T22AW987-0014 |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.065 | 0.055 | 0.084 | 0.088 |
| PARTICULATE MATTER (≤ 10 µm) | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.020 | 0.021 | 0.042 | 0.036 |
| SAMPLE CONDITION | | | COMPLETE | COMPLETE | COMPLETE | COMPLETE |

REMARK

TSP, PM10 : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
TSP : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX B.
PM10 : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX J.
* : SAMPLING FROM 09:30 HOUR ON NOVEMBER 13, 2022 TO 09:30 HOUR ON NOVEMBER 14, 2022.
** : SAMPLING FROM 09:30 HOUR ON NOVEMBER 14, 2022 TO 09:30 HOUR ON NOVEMBER 15, 2022.
*** : SAMPLING FROM 09:30 HOUR ON NOVEMBER 15, 2022 TO 09:30 HOUR ON NOVEMBER 16, 2022.
**** : SAMPLING FROM 09:30 HOUR ON NOVEMBER 16, 2022 TO 09:30 HOUR ON NOVEMBER 17, 2022.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR

NOVEMBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
MEASURING PLACE : BAN AO UDOM
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : NOVEMBER 10-17, 2022
MEASURING TIME : *
MEASURING METHOD : CHEMILUMINESCENCE
MEASURED BY : MR SIRAPAT JONGPHADUNGKIET

RECEIVED DATE : NOVEMBER 10-17, 2022
ANALYTICAL DATE : NOVEMBER 10-17, 2022
REPORT NO. : 2022-U092884
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0008 - T22AW987-0014

| TIME * | RESULT (ppm) | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | NITROGEN DIOXIDE | | |
| | BAN AO UDOM | | |
| | NOVEMBER 10-11, 2022 T22AW987-0008 | NOVEMBER 11-12, 2022 T22AW987-0009 | NOVEMBER 12-13, 2022 T22AW987-0010 |
| 07:00-08:00 HOUR | 0.0260 | 0.0244 | 0.0232 |
| 08:00-09:00 HOUR | 0.0238 | 0.0237 | 0.0250 |
| 09:00-10:00 HOUR | 0.0260 | 0.0256 | 0.0242 |
| 10:00-11:00 HOUR | 0.0244 | 0.0247 | 0.0251 |
| 11:00-12:00 HOUR | 0.0243 | 0.0265 | 0.0248 |
| 12:00-13:00 HOUR | 0.0262 | 0.0264 | 0.0246 |
| 13:00-14:00 HOUR | 0.0242 | 0.0257 | 0.0273 |
| 14:00-15:00 HOUR | 0.0248 | 0.0260 | 0.0253 |
| 15:00-16:00 HOUR | 0.0237 | 0.0239 | 0.0251 |
| 16:00-17:00 HOUR | 0.0270 | 0.0267 | 0.0263 |
| 17:00-18:00 HOUR | 0.0243 | 0.0266 | 0.0268 |
| 18:00-19:00 HOUR | 0.0240 | 0.0247 | 0.0242 |
| 19:00-20:00 HOUR | 0.0212 | 0.0241 | 0.0267 |
| 20:00-21:00 HOUR | 0.0222 | 0.0229 | 0.0247 |
| 21:00-22:00 HOUR | 0.0203 | 0.0217 | 0.0245 |
| 22:00-23:00 HOUR | 0.0226 | 0.0227 | 0.0226 |
| 23:00-00:00 HOUR | 0.0222 | 0.0229 | 0.0208 |
| 00:00-01:00 HOUR | 0.0199 | 0.0221 | 0.0196 |
| 01:00-02:00 HOUR | 0.0227 | 0.0206 | 0.0198 |
| 02:00-03:00 HOUR | 0.0192 | 0.0222 | 0.0204 |
| 03:00-04:00 HOUR | 0.0215 | 0.0224 | 0.0219 |
| 04:00-05:00 HOUR | 0.0237 | 0.0223 | 0.0231 |
| 05:00-06:00 HOUR | 0.0250 | 0.0223 | 0.0250 |
| 06:00-07:00 HOUR | 0.0266 | 0.0229 | 0.0253 |



| TIME * | RESULT (ppm) | | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | NITROGEN DIOXIDE | | | |
| | BAN AO UDOM | | | |
| | NOVEMBER 13-14, 2022 T22AW987-0011 | NOVEMBER 14-15, 2022 T22AW987-0012 | NOVEMBER 15-16, 2022 T22AW987-0013 | NOVEMBER 16-17, 2022 T22AW987-0014 |
| 07:00-08:00 HOUR | 0.0270 | 0.0228 | 0.0248 | 0.0245 |
| 08:00-09:00 HOUR | 0.0246 | 0.0235 | 0.0264 | 0.0242 |
| 09:00-10:00 HOUR | 0.0240 | 0.0254 | 0.0254 | 0.0250 |
| 10:00-11:00 HOUR | 0.0248 | 0.0265 | 0.0249 | 0.0245 |
| 11:00-12:00 HOUR | 0.0245 | 0.0253 | 0.0266 | 0.0265 |
| 12:00-13:00 HOUR | 0.0242 | 0.0257 | 0.0266 | 0.0252 |
| 13:00-14:00 HOUR | 0.0250 | 0.0251 | 0.0258 | 0.0255 |
| 14:00-15:00 HOUR | 0.0257 | 0.0237 | 0.0240 | 0.0245 |
| 15:00-16:00 HOUR | 0.0260 | 0.0264 | 0.0245 | 0.0236 |
| 16:00-17:00 HOUR | 0.0250 | 0.0248 | 0.0258 | 0.0250 |
| 17:00-18:00 HOUR | 0.0254 | 0.0241 | 0.0253 | 0.0246 |
| 18:00-19:00 HOUR | 0.0256 | 0.0250 | 0.0256 | 0.0253 |
| 19:00-20:00 HOUR | 0.0255 | 0.0255 | 0.0246 | 0.0247 |
| 20:00-21:00 HOUR | 0.0253 | 0.0260 | 0.0230 | 0.0245 |
| 21:00-22:00 HOUR | 0.0244 | 0.0238 | 0.0232 | 0.0239 |
| 22:00-23:00 HOUR | 0.0239 | 0.0242 | 0.0220 | 0.0222 |
| 23:00-00:00 HOUR | 0.0246 | 0.0226 | 0.0218 | 0.0225 |
| 00:00-01:00 HOUR | 0.0222 | 0.0218 | 0.0228 | 0.0208 |
| 01:00-02:00 HOUR | 0.0215 | 0.0235 | 0.0191 | 0.0229 |
| 02:00-03:00 HOUR | 0.0225 | 0.0232 | 0.0226 | 0.0236 |
| 03:00-04:00 HOUR | 0.0221 | 0.0217 | 0.0237 | 0.0225 |
| 04:00-05:00 HOUR | 0.0196 | 0.0245 | 0.0269 | 0.0243 |
| 05:00-06:00 HOUR | 0.0197 | 0.0235 | 0.0240 | 0.0255 |
| 06:00-07:00 HOUR | 0.0225 | 0.0238 | 0.0263 | 0.0251 |

LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
MEASURING PLACE : BAN AO UDOM
MEASURING TYPE : AMBIENT (AIR) **RECEIVED DATE** : NOVEMBER 10-17, 2022
MEASURING DATE : NOVEMBER 10-17, 2022 **ANALYTICAL DATE** : NOVEMBER 10-17, 2022
MEASURING TIME : * **REPORT NO.** : 2022-U092888
MEASURING METHOD : UV FLUORESCENCE **WORK NO.** : 2019-002022
MEASURED BY : MR SIRAPAT JONGPHADUNGKIET **ANALYSIS NO.** : T22AW987-0008 - T22AW987-0014

| เวลา * | RESULT (ppm) | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | SULPHUR DIOXIDE | | |
| | BAN AO UDOM | | |
| | NOVEMBER 10-11, 2022 T22AW987-0008 | NOVEMBER 11-12, 2022 T22AW987-0009 | NOVEMBER 12-13, 2022 T22AW987-0010 |
| 07:00-08:00 HOUR | 0.0034 | 0.0039 | 0.0029 |
| 08:00-09:00 HOUR | 0.0038 | 0.0037 | 0.0032 |
| 09:00-10:00 HOUR | 0.0039 | 0.0038 | 0.0033 |
| 10:00-11:00 HOUR | 0.0034 | 0.0032 | 0.0034 |
| 11:00-12:00 HOUR | 0.0032 | 0.0039 | 0.0035 |
| 12:00-13:00 HOUR | 0.0036 | 0.0031 | 0.0035 |
| 13:00-14:00 HOUR | 0.0034 | 0.0036 | 0.0038 |
| 14:00-15:00 HOUR | 0.0035 | 0.0032 | 0.0036 |
| 15:00-16:00 HOUR | 0.0032 | 0.0037 | 0.0032 |
| 16:00-17:00 HOUR | 0.0037 | 0.0033 | 0.0033 |
| 17:00-18:00 HOUR | 0.0035 | 0.0035 | 0.0034 |
| 18:00-19:00 HOUR | 0.0028 | 0.0037 | 0.0033 |
| 19:00-20:00 HOUR | 0.0027 | 0.0036 | 0.0032 |
| 20:00-21:00 HOUR | 0.0023 | 0.0036 | 0.0030 |
| 21:00-22:00 HOUR | 0.0028 | 0.0033 | 0.0026 |
| 22:00-23:00 HOUR | 0.0028 | 0.0029 | 0.0024 |
| 23:00-00:00 HOUR | 0.0027 | 0.0026 | 0.0028 |
| 00:00-01:00 HOUR | 0.0028 | 0.0025 | 0.0027 |
| 01:00-02:00 HOUR | 0.0027 | 0.0022 | 0.0026 |
| 02:00-03:00 HOUR | 0.0026 | 0.0023 | 0.0027 |
| 03:00-04:00 HOUR | 0.0024 | 0.0028 | 0.0023 |
| 04:00-05:00 HOUR | 0.0029 | 0.0024 | 0.0027 |
| 05:00-06:00 HOUR | 0.0032 | 0.0028 | 0.0023 |
| 06:00-07:00 HOUR | 0.0033 | 0.0027 | 0.0027 |
| AVERAGE 24 HOUR | 0.0031 | 0.0032 | 0.0030 |



| เวลา * | RESULT (ppm) | | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | SULPHUR DIOXIDE | | | |
| | BAN AO UDOM | | | |
| | NOVEMBER 13-14, 2022 T22AW987-0011 | NOVEMBER 14-15, 2022 T22AW987-0012 | NOVEMBER 15-16, 2022 T22AW987-0013 | NOVEMBER 16-17, 2022 T22AW987-0014 |
| 07:00-08:00 HOUR | 0.0031 | 0.0037 | 0.0034 | 0.0038 |
| 08:00-09:00 HOUR | 0.0036 | 0.0035 | 0.0035 | 0.0038 |
| 09:00-10:00 HOUR | 0.0037 | 0.0032 | 0.0039 | 0.0037 |
| 10:00-11:00 HOUR | 0.0033 | 0.0034 | 0.0035 | 0.0031 |
| 11:00-12:00 HOUR | 0.0039 | 0.0039 | 0.0031 | 0.0034 |
| 12:00-13:00 HOUR | 0.0038 | 0.0034 | 0.0031 | 0.0034 |
| 13:00-14:00 HOUR | 0.0034 | 0.0038 | 0.0033 | 0.0037 |
| 14:00-15:00 HOUR | 0.0038 | 0.0032 | 0.0033 | 0.0037 |
| 15:00-16:00 HOUR | 0.0039 | 0.0035 | 0.0031 | 0.0035 |
| 16:00-17:00 HOUR | 0.0037 | 0.0036 | 0.0031 | 0.0032 |
| 17:00-18:00 HOUR | 0.0038 | 0.0039 | 0.0033 | 0.0038 |
| 18:00-19:00 HOUR | 0.0032 | 0.0031 | 0.0038 | 0.0031 |
| 19:00-20:00 HOUR | 0.0035 | 0.0034 | 0.0032 | 0.0033 |
| 20:00-21:00 HOUR | 0.0031 | 0.0032 | 0.0031 | 0.0039 |
| 21:00-22:00 HOUR | 0.0029 | 0.0029 | 0.0039 | 0.0033 |
| 22:00-23:00 HOUR | 0.0029 | 0.0028 | 0.0036 | 0.0032 |
| 23:00-00:00 HOUR | 0.0025 | 0.0026 | 0.0032 | 0.0029 |
| 00:00-01:00 HOUR | 0.0026 | 0.0027 | 0.0030 | 0.0028 |
| 01:00-02:00 HOUR | 0.0027 | 0.0029 | 0.0029 | 0.0029 |
| 02:00-03:00 HOUR | 0.0026 | 0.0026 | 0.0025 | 0.0026 |
| 03:00-04:00 HOUR | 0.0029 | 0.0029 | 0.0026 | 0.0027 |
| 04:00-05:00 HOUR | 0.0031 | 0.0039 | 0.0027 | 0.0028 |
| 05:00-06:00 HOUR | 0.0032 | 0.0033 | 0.0029 | 0.0029 |
| 06:00-07:00 HOUR | 0.0034 | 0.0038 | 0.0032 | 0.0032 |
| AVERAGE 24 HOUR | 0.0033 | 0.0033 | 0.0032 | 0.0033 |

(MR. SILA BANJONGJAIKUK)
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : LAM CHABANG PORT'S G
SAMPLE TYPE : AMBIENT
SAMPLING DATE : *, **, ***
SAMPLING TIME : *, **, ***
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIET
ANALYZED BY : MISS JETJARIN TUMSA-AT

RECEIVED DATE : NOVEMBER 17, 2022
ANALYTICAL DATE : NOVEMBER 17-23, 2022
REPORT NO. : 2022-U093663
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0015 - T22AW987-0017

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | | |
|--|-------------------|----------------------------------|----------------------|---------------|---------------|
| | | | LAM CHABANG PORT'S G | | |
| | | | * | ** | *** |
| | | | T22AW987-0015 | T22AW987-0016 | T22AW987-0017 |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.098 | 0.077 | 0.084 |
| PARTICULATE MATTER ($\leq 10 \mu\text{m}$) | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.043 | 0.034 | 0.040 |
| SAMPLE CONDITION | | | COMPLETE | COMPLETE | COMPLETE |

REMARK

TSP, PM10 : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
TSP : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX B.
PM10 : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX J.
* : SAMPLING FROM 09:00 HOUR ON NOVEMBER 10, 2022 TO 09:00 HOUR ON NOVEMBER 11, 2022.
** : SAMPLING FROM 09:00 HOUR ON NOVEMBER 11, 2022 TO 09:00 HOUR ON NOVEMBER 12, 2022.
*** : SAMPLING FROM 09:00 HOUR ON NOVEMBER 12, 2022 TO 09:00 HOUR ON NOVEMBER 13, 2022.

(MISS DUSARORN LERDTHANONG)
LABORATORY SUPERVISOR

NOVEMBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : LAM CHABANG PORT'S G
SAMPLE TYPE : AMBIENT
SAMPLING DATE : * ** ** **
SAMPLING TIME : * ** ** **
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIET
ANALYZED BY : MISS JETJARAN TUMSA-AT
RECEIVED DATE : NOVEMBER 17, 2022
ANALYTICAL DATE : NOVEMBER 17-23, 2022
REPORT NO. : 2022-U093664
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0018 - T22AW987-0021

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | | | |
|------------------------------|-------------------|----------------------------------|----------------------|---------------|---------------|---------------|
| | | | LAM CHABANG PORT'S G | | | |
| | | | * | ** | *** | **** |
| | | | T22AW987-0018 | T22AW987-0019 | T22AW987-0020 | T22AW987-0021 |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.060 | 0.063 | 0.123 | 0.084 |
| PARTICULATE MATTER (≤ 10 µm) | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.019 | 0.031 | 0.063 | 0.042 |
| SAMPLE CONDITION | | | COMPLETE | COMPLETE | COMPLETE | COMPLETE |

REMARK

TSP, PM10 : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
TSP : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX B.
PM10 : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX J.
* : SAMPLING FROM 09:00 HOUR ON NOVEMBER 13, 2022 TO 09:00 HOUR ON NOVEMBER 14, 2022.
** : SAMPLING FROM 09:00 HOUR ON NOVEMBER 14, 2022 TO 09:00 HOUR ON NOVEMBER 15, 2022.
*** : SAMPLING FROM 09:00 HOUR ON NOVEMBER 15, 2022 TO 09:00 HOUR ON NOVEMBER 16, 2022.
**** : SAMPLING FROM 09:00 HOUR ON NOVEMBER 16, 2022 TO 09:00 HOUR ON NOVEMBER 17, 2022.

(MISS BUDSAKORN LERDPANOMAS)
LABORATORY SUPERVISOR

NOVEMBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
MEASURING PLACE : LAM CHABANG PORT'S G
MEASURING TYPE : AMBIENT (AIR) **RECEIVED DATE** : NOVEMBER 10-17, 2022
MEASURING DATE : NOVEMBER 10-17, 2022 **ANALYTICAL DATE** : NOVEMBER 10-17, 2022
MEASURING TIME : * **REPORT NO.** : 2022-U092885
MEASURING METHOD : CHEMILUMINESCENCE **WORK NO.** : 2019-002022
MEASURED BY : MR SIRAPAT JONGPHADUNGKIET **ANALYSIS NO.** : T22AW987-0015 - T22AW987-0021

| TIME * | RESULT (ppm) | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | NITROGEN DIOXIDE | | |
| | LAM CHABANG PORT'S G | | |
| | NOVEMBER 10-11, 2022 T22AW987-0015 | NOVEMBER 11-12, 2022 T22AW987-0016 | NOVEMBER 12-13, 2022 T22AW987-0017 |
| 07:00-08:00 HOUR | 0.0240 | 0.0258 | 0.0234 |
| 08:00-09:00 HOUR | 0.0266 | 0.0267 | 0.0236 |
| 09:00-10:00 HOUR | 0.0264 | 0.0270 | 0.0241 |
| 10:00-11:00 HOUR | 0.0265 | 0.0243 | 0.0267 |
| 11:00-12:00 HOUR | 0.0270 | 0.0271 | 0.0255 |
| 12:00-13:00 HOUR | 0.0255 | 0.0243 | 0.0258 |
| 13:00-14:00 HOUR | 0.0240 | 0.0251 | 0.0259 |
| 14:00-15:00 HOUR | 0.0271 | 0.0263 | 0.0252 |
| 15:00-16:00 HOUR | 0.0272 | 0.0264 | 0.0261 |
| 16:00-17:00 HOUR | 0.0249 | 0.0262 | 0.0273 |
| 17:00-18:00 HOUR | 0.0252 | 0.0261 | 0.0274 |
| 18:00-19:00 HOUR | 0.0240 | 0.0264 | 0.0270 |
| 19:00-20:00 HOUR | 0.0237 | 0.0257 | 0.0264 |
| 20:00-21:00 HOUR | 0.0211 | 0.0255 | 0.0263 |
| 21:00-22:00 HOUR | 0.0208 | 0.0269 | 0.0237 |
| 22:00-23:00 HOUR | 0.0232 | 0.0264 | 0.0232 |
| 23:00-00:00 HOUR | 0.0230 | 0.0242 | 0.0231 |
| 00:00-01:00 HOUR | 0.0233 | 0.0237 | 0.0220 |
| 01:00-02:00 HOUR | 0.0205 | 0.0229 | 0.0244 |
| 02:00-03:00 HOUR | 0.0236 | 0.0224 | 0.0204 |
| 03:00-04:00 HOUR | 0.0221 | 0.0213 | 0.0213 |
| 04:00-05:00 HOUR | 0.0226 | 0.0230 | 0.0232 |
| 05:00-06:00 HOUR | 0.0246 | 0.0220 | 0.0227 |
| 06:00-07:00 HOUR | 0.0260 | 0.0229 | 0.0248 |



| TIME * | RESULT (ppm) | | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | NITROGEN DIOXIDE | | | |
| | LAM CHABANG PORT'S G | | | |
| | NOVEMBER 13-14, 2022 T22AW987-0018 | NOVEMBER 14-15, 2022 T22AW987-0019 | NOVEMBER 15-16, 2022 T22AW987-0020 | NOVEMBER 16-17, 2022 T22AW987-0021 |
| 07:00-08:00 HOUR | 0.0260 | 0.0258 | 0.0241 | 0.0251 |
| 08:00-09:00 HOUR | 0.0259 | 0.0250 | 0.0252 | 0.0267 |
| 09:00-10:00 HOUR | 0.0246 | 0.0254 | 0.0270 | 0.0239 |
| 10:00-11:00 HOUR | 0.0271 | 0.0256 | 0.0268 | 0.0266 |
| 11:00-12:00 HOUR | 0.0262 | 0.0248 | 0.0266 | 0.0256 |
| 12:00-13:00 HOUR | 0.0253 | 0.0263 | 0.0269 | 0.0269 |
| 13:00-14:00 HOUR | 0.0261 | 0.0264 | 0.0249 | 0.0259 |
| 14:00-15:00 HOUR | 0.0260 | 0.0248 | 0.0267 | 0.0261 |
| 15:00-16:00 HOUR | 0.0271 | 0.0272 | 0.0265 | 0.0264 |
| 16:00-17:00 HOUR | 0.0266 | 0.0271 | 0.0272 | 0.0267 |
| 17:00-18:00 HOUR | 0.0250 | 0.0257 | 0.0249 | 0.0243 |
| 18:00-19:00 HOUR | 0.0275 | 0.0260 | 0.0261 | 0.0276 |
| 19:00-20:00 HOUR | 0.0266 | 0.0245 | 0.0251 | 0.0273 |
| 20:00-21:00 HOUR | 0.0271 | 0.0270 | 0.0270 | 0.0263 |
| 21:00-22:00 HOUR | 0.0250 | 0.0260 | 0.0259 | 0.0238 |
| 22:00-23:00 HOUR | 0.0244 | 0.0250 | 0.0244 | 0.0233 |
| 23:00-00:00 HOUR | 0.0235 | 0.0250 | 0.0241 | 0.0214 |
| 00:00-01:00 HOUR | 0.0241 | 0.0261 | 0.0224 | 0.0217 |
| 01:00-02:00 HOUR | 0.0228 | 0.0245 | 0.0226 | 0.0213 |
| 02:00-03:00 HOUR | 0.0225 | 0.0242 | 0.0214 | 0.0235 |
| 03:00-04:00 HOUR | 0.0212 | 0.0221 | 0.0243 | 0.0233 |
| 04:00-05:00 HOUR | 0.0235 | 0.0226 | 0.0216 | 0.0213 |
| 05:00-06:00 HOUR | 0.0244 | 0.0209 | 0.0213 | 0.0228 |
| 06:00-07:00 HOUR | 0.0277 | 0.0231 | 0.0241 | 0.0244 |

(MR SILA BANJONGJAIKUN)
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
MEASURING PLACE : LAM CHABANG PORT'S G
MEASURING TYPE : AMBIENT (AIR) **RECEIVED DATE** : NOVEMBER 10-17, 2022
MEASURING DATE : NOVEMBER 10-17, 2022 **ANALYTICAL DATE** : NOVEMBER 10-17, 2022
MEASURING TIME : * **REPORT NO.** : 2022-U092889
MEASURING METHOD : UV FLUORESCENCE **WORK NO.** : 2019-002022
MEASURED BY : MR SIRAPAT JONGPHADUNGKIET **ANALYSIS NO.** : T22AW987-0015 - T22AW987-0021

| เวลา * | RESULT (ppm) | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | SULPHUR DIOXIDE | | |
| | LAM CHABANG PORT'S G | | |
| | NOVEMBER 10-11, 2022 T22AW987-0015 | NOVEMBER 11-12, 2022 T22AW987-0016 | NOVEMBER 12-13, 2022 T22AW987-0017 |
| 07:00-08:00 HOUR | 0.0033 | 0.0040 | 0.0031 |
| 08:00-09:00 HOUR | 0.0033 | 0.0036 | 0.0033 |
| 09:00-10:00 HOUR | 0.0040 | 0.0042 | 0.0035 |
| 10:00-11:00 HOUR | 0.0039 | 0.0042 | 0.0037 |
| 11:00-12:00 HOUR | 0.0033 | 0.0043 | 0.0034 |
| 12:00-13:00 HOUR | 0.0043 | 0.0034 | 0.0040 |
| 13:00-14:00 HOUR | 0.0035 | 0.0042 | 0.0035 |
| 14:00-15:00 HOUR | 0.0033 | 0.0035 | 0.0036 |
| 15:00-16:00 HOUR | 0.0040 | 0.0039 | 0.0036 |
| 16:00-17:00 HOUR | 0.0040 | 0.0041 | 0.0034 |
| 17:00-18:00 HOUR | 0.0036 | 0.0037 | 0.0034 |
| 18:00-19:00 HOUR | 0.0036 | 0.0040 | 0.0037 |
| 19:00-20:00 HOUR | 0.0037 | 0.0038 | 0.0033 |
| 20:00-21:00 HOUR | 0.0034 | 0.0034 | 0.0040 |
| 21:00-22:00 HOUR | 0.0034 | 0.0032 | 0.0035 |
| 22:00-23:00 HOUR | 0.0033 | 0.0032 | 0.0031 |
| 23:00-00:00 HOUR | 0.0029 | 0.0030 | 0.0023 |
| 00:00-01:00 HOUR | 0.0025 | 0.0032 | 0.0032 |
| 01:00-02:00 HOUR | 0.0027 | 0.0027 | 0.0023 |
| 02:00-03:00 HOUR | 0.0028 | 0.0028 | 0.0027 |
| 03:00-04:00 HOUR | 0.0026 | 0.0028 | 0.0026 |
| 04:00-05:00 HOUR | 0.0026 | 0.0028 | 0.0027 |
| 05:00-06:00 HOUR | 0.0031 | 0.0025 | 0.0025 |
| 06:00-07:00 HOUR | 0.0034 | 0.0032 | 0.0028 |
| AVERAGE 24 HOUR | 0.0034 | 0.0035 | 0.0032 |



| เวลา * | RESULT (ppm) | | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | SULPHUR DIOXIDE | | | |
| | LAM CHABANG PORT'S G | | | |
| | NOVEMBER 13-14, 2022 T22AW987-0018 | NOVEMBER 14-15, 2022 T22AW987-0019 | NOVEMBER 15-16, 2022 T22AW987-0020 | NOVEMBER 16-17, 2022 T22AW987-0021 |
| 07:00-08:00 HOUR | 0.0031 | 0.0035 | 0.0030 | 0.0032 |
| 08:00-09:00 HOUR | 0.0033 | 0.0036 | 0.0031 | 0.0033 |
| 09:00-10:00 HOUR | 0.0035 | 0.0034 | 0.0042 | 0.0039 |
| 10:00-11:00 HOUR | 0.0039 | 0.0042 | 0.0034 | 0.0039 |
| 11:00-12:00 HOUR | 0.0038 | 0.0038 | 0.0043 | 0.0036 |
| 12:00-13:00 HOUR | 0.0040 | 0.0039 | 0.0043 | 0.0035 |
| 13:00-14:00 HOUR | 0.0038 | 0.0038 | 0.0043 | 0.0034 |
| 14:00-15:00 HOUR | 0.0041 | 0.0037 | 0.0035 | 0.0039 |
| 15:00-16:00 HOUR | 0.0037 | 0.0043 | 0.0039 | 0.0036 |
| 16:00-17:00 HOUR | 0.0034 | 0.0033 | 0.0039 | 0.0038 |
| 17:00-18:00 HOUR | 0.0035 | 0.0038 | 0.0039 | 0.0032 |
| 18:00-19:00 HOUR | 0.0043 | 0.0039 | 0.0042 | 0.0031 |
| 19:00-20:00 HOUR | 0.0043 | 0.0037 | 0.0038 | 0.0024 |
| 20:00-21:00 HOUR | 0.0034 | 0.0032 | 0.0033 | 0.0030 |
| 21:00-22:00 HOUR | 0.0037 | 0.0030 | 0.0043 | 0.0031 |
| 22:00-23:00 HOUR | 0.0031 | 0.0026 | 0.0033 | 0.0027 |
| 23:00-00:00 HOUR | 0.0029 | 0.0028 | 0.0031 | 0.0028 |
| 00:00-01:00 HOUR | 0.0031 | 0.0028 | 0.0028 | 0.0029 |
| 01:00-02:00 HOUR | 0.0024 | 0.0027 | 0.0029 | 0.0031 |
| 02:00-03:00 HOUR | 0.0028 | 0.0027 | 0.0024 | 0.0024 |
| 03:00-04:00 HOUR | 0.0029 | 0.0024 | 0.0025 | 0.0029 |
| 04:00-05:00 HOUR | 0.0024 | 0.0026 | 0.0029 | 0.0030 |
| 05:00-06:00 HOUR | 0.0030 | 0.0025 | 0.0030 | 0.0032 |
| 06:00-07:00 HOUR | 0.0032 | 0.0029 | 0.0031 | 0.0033 |
| AVERAGE 24 HOUR | 0.0034 | 0.0033 | 0.0035 | 0.0032 |

(MR. SIDA BANJONGJAIKUN)
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : K.U.STATION
SAMPLE TYPE : AMBIENT
SAMPLING DATE : *, **, ***
SAMPLING TIME : *, **, ***
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIET
ANALYZED BY : MISS JETJARIN TUMSA-AT
RECEIVED DATE : NOVEMBER 17, 2022
ANALYTICAL DATE : NOVEMBER 17-23, 2022
REPORT NO. : 2022-U093665
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0022 - T22AW987-0024

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | | |
|------------------------------|-------------------|----------------------------------|--------------------|---------------------|----------------------|
| | | | K.U.STATION | | |
| | | | * T22AW987-0022 | ** T22AW987-0023 | *** T22AW987-0024 |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.068 | 0.049 | 0.047 |
| PARTICULATE MATTER (≤ 10 µm) | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.044 | 0.035 | 0.033 |
| SAMPLE CONDITION | | | COMPLETE | COMPLETE | COMPLETE |

REMARK

TSP, PM10 : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
TSP : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX B.
PM10 : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX J.
* : SAMPLING FROM 10:00 HOUR ON NOVEMBER 10, 2022 TO 10:00 HOUR ON NOVEMBER 11, 2022.
** : SAMPLING FROM 10:00 HOUR ON NOVEMBER 11, 2022 TO 10:00 HOUR ON NOVEMBER 12, 2022.
*** : SAMPLING FROM 10:00 HOUR ON NOVEMBER 12, 2022 TO 10:00 HOUR ON NOVEMBER 13, 2022.

LABORATORY SUPERVISOR

NOVEMBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : K.U.STATION
SAMPLE TYPE : AMBIENT
SAMPLING DATE : * , ** , *** , ****
SAMPLING TIME : * , ** , *** , ****
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIET
ANALYZED BY : MISS JETJARIN TUMSA-AT

RECEIVED DATE : NOVEMBER 17, 2022
ANALYTICAL DATE : NOVEMBER 17-23, 2022
REPORT NO. : 2022-U093666
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0025 - T22AW987-0028

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | | | |
|------------------------------|-------------------|----------------------------------|---------------|---------------|---------------|---------------|
| | | | K.U.STATION | | | |
| | | | * | ** | *** | **** |
| | | | T22AW987-0025 | T22AW987-0026 | T22AW987-0027 | T22AW987-0028 |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.037 | 0.046 | 0.060 | 0.044 |
| PARTICULATE MATTER (≤ 10 μm) | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.014 | 0.022 | 0.043 | 0.031 |
| SAMPLE CONDITION | | | COMPLETE | COMPLETE | COMPLETE | COMPLETE |

REMARK

TSP, PM10 : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
TSP : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX B.
PM10 : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX J.
* : SAMPLING FROM 10:00 HOUR ON NOVEMBER 13, 2022 TO 10:00 HOUR ON NOVEMBER 14, 2022.
** : SAMPLING FROM 10:00 HOUR ON NOVEMBER 14, 2022 TO 10:00 HOUR ON NOVEMBER 15, 2022.
*** : SAMPLING FROM 10:00 HOUR ON NOVEMBER 15, 2022 TO 10:00 HOUR ON NOVEMBER 16, 2022.
**** : SAMPLING FROM 10:00 HOUR ON NOVEMBER 16, 2022 TO 10:00 HOUR ON NOVEMBER 17, 2022.

(MISS BUDSAKORN LERDPANOMAS)
LABORATORY SUPERVISOR

NOVEMBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
MEASURING PLACE : K.U.STATION
MEASURING TYPE : AMBIENT (AIR) **RECEIVED DATE** : NOVEMBER 10-17, 2022
MEASURING DATE : NOVEMBER 10-17, 2022 **ANALYTICAL DATE** : NOVEMBER 10-17, 2022
MEASURING TIME : * **REPORT NO.** : 2022-U092886
MEASURING METHOD : CHEMILUMINESCENCE **WORK NO.** : 2019-002022
MEASURED BY : MR SIRAPAT JONGPHADUNGKIET **ANALYSIS NO.** : T22AW987-0022 - T22AW987-0028

| TIME * | RESULT (ppm) | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | NITROGEN DIOXIDE | | |
| | K.U.STATION | | |
| | NOVEMBER 10-11, 2022 T22AW987-0022 | NOVEMBER 11-12, 2022 T22AW987-0023 | NOVEMBER 12-13, 2022 T22AW987-0024 |
| 07:00-08:00 HOUR | 0.0220 | 0.0230 | 0.0230 |
| 08:00-09:00 HOUR | 0.0220 | 0.0211 | 0.0225 |
| 09:00-10:00 HOUR | 0.0235 | 0.0224 | 0.0230 |
| 10:00-11:00 HOUR | 0.0244 | 0.0240 | 0.0200 |
| 11:00-12:00 HOUR | 0.0229 | 0.0241 | 0.0229 |
| 12:00-13:00 HOUR | 0.0214 | 0.0210 | 0.0227 |
| 13:00-14:00 HOUR | 0.0214 | 0.0204 | 0.0233 |
| 14:00-15:00 HOUR | 0.0224 | 0.0233 | 0.0243 |
| 15:00-16:00 HOUR | 0.0202 | 0.0224 | 0.0228 |
| 16:00-17:00 HOUR | 0.0223 | 0.0203 | 0.0220 |
| 17:00-18:00 HOUR | 0.0229 | 0.0213 | 0.0226 |
| 18:00-19:00 HOUR | 0.0198 | 0.0207 | 0.0232 |
| 19:00-20:00 HOUR | 0.0221 | 0.0235 | 0.0230 |
| 20:00-21:00 HOUR | 0.0244 | 0.0216 | 0.0228 |
| 21:00-22:00 HOUR | 0.0224 | 0.0210 | 0.0188 |
| 22:00-23:00 HOUR | 0.0213 | 0.0219 | 0.0232 |
| 23:00-00:00 HOUR | 0.0210 | 0.0204 | 0.0227 |
| 00:00-01:00 HOUR | 0.0211 | 0.0198 | 0.0220 |
| 01:00-02:00 HOUR | 0.0196 | 0.0197 | 0.0204 |
| 02:00-03:00 HOUR | 0.0193 | 0.0208 | 0.0211 |
| 03:00-04:00 HOUR | 0.0193 | 0.0199 | 0.0198 |
| 04:00-05:00 HOUR | 0.0201 | 0.0201 | 0.0223 |
| 05:00-06:00 HOUR | 0.0218 | 0.0203 | 0.0226 |
| 06:00-07:00 HOUR | 0.0243 | 0.0214 | 0.0243 |



| TIME * | RESULT (ppm) | | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | NITROGEN DIOXIDE | | | |
| | K.U.STATION | | | |
| | NOVEMBER 13-14, 2022 T22AW987-0025 | NOVEMBER 14-15, 2022 T22AW987-0026 | NOVEMBER 15-16, 2022 T22AW987-0027 | NOVEMBER 16-17, 2022 T22AW987-0028 |
| 07:00-08:00 HOUR | 0.0221 | 0.0216 | 0.0216 | 0.0204 |
| 08:00-09:00 HOUR | 0.0210 | 0.0210 | 0.0232 | 0.0223 |
| 09:00-10:00 HOUR | 0.0220 | 0.0200 | 0.0240 | 0.0223 |
| 10:00-11:00 HOUR | 0.0207 | 0.0209 | 0.0228 | 0.0192 |
| 11:00-12:00 HOUR | 0.0220 | 0.0208 | 0.0221 | 0.0201 |
| 12:00-13:00 HOUR | 0.0237 | 0.0227 | 0.0224 | 0.0196 |
| 13:00-14:00 HOUR | 0.0193 | 0.0203 | 0.0219 | 0.0230 |
| 14:00-15:00 HOUR | 0.0188 | 0.0220 | 0.0220 | 0.0208 |
| 15:00-16:00 HOUR | 0.0211 | 0.0221 | 0.0211 | 0.0231 |
| 16:00-17:00 HOUR | 0.0222 | 0.0231 | 0.0208 | 0.0231 |
| 17:00-18:00 HOUR | 0.0197 | 0.0201 | 0.0203 | 0.0213 |
| 18:00-19:00 HOUR | 0.0212 | 0.0214 | 0.0188 | 0.0211 |
| 19:00-20:00 HOUR | 0.0212 | 0.0220 | 0.0195 | 0.0190 |
| 20:00-21:00 HOUR | 0.0214 | 0.0213 | 0.0224 | 0.0213 |
| 21:00-22:00 HOUR | 0.0204 | 0.0220 | 0.0228 | 0.0223 |
| 22:00-23:00 HOUR | 0.0219 | 0.0213 | 0.0213 | 0.0237 |
| 23:00-00:00 HOUR | 0.0206 | 0.0203 | 0.0248 | 0.0227 |
| 00:00-01:00 HOUR | 0.0209 | 0.0248 | 0.0222 | 0.0195 |
| 01:00-02:00 HOUR | 0.0211 | 0.0228 | 0.0196 | 0.0205 |
| 02:00-03:00 HOUR | 0.0197 | 0.0219 | 0.0212 | 0.0206 |
| 03:00-04:00 HOUR | 0.0203 | 0.0227 | 0.0207 | 0.0244 |
| 04:00-05:00 HOUR | 0.0197 | 0.0230 | 0.0231 | 0.0207 |
| 05:00-06:00 HOUR | 0.0207 | 0.0205 | 0.0222 | 0.0214 |
| 06:00-07:00 HOUR | 0.0202 | 0.0224 | 0.0237 | 0.0220 |

(MR SIDA BANJONGJAIKUN)
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
MEASURING PLACE : K.U.STATION
MEASURING TYPE : AMBIENT (AIR) **RECEIVED DATE** : NOVEMBER 10-17, 2022
MEASURING DATE : NOVEMBER 10-17, 2022 **ANALYTICAL DATE** : NOVEMBER 10-17, 2022
MEASURING TIME : * **REPORT NO.** : 2022-U092890
MEASURING METHOD : UV FLUORESCENCE **WORK NO.** : 2019-002022
MEASURED BY : MR SIRAPAT JONGPHADUNGKIET **ANALYSIS NO.** : T22AW987-0022 - T22AW987-0028

| เวลา * | RESULT (ppm) | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | SULPHUR DIOXIDE | | |
| | K.U.STATION | | |
| | NOVEMBER 10-11, 2022 T22AW987-0022 | NOVEMBER 11-12, 2022 T22AW987-0023 | NOVEMBER 12-13, 2022 T22AW987-0024 |
| 07:00-08:00 HOUR | 0.0033 | 0.0031 | 0.0031 |
| 08:00-09:00 HOUR | 0.0034 | 0.0027 | 0.0030 |
| 09:00-10:00 HOUR | 0.0032 | 0.0026 | 0.0029 |
| 10:00-11:00 HOUR | 0.0033 | 0.0025 | 0.0027 |
| 11:00-12:00 HOUR | 0.0029 | 0.0027 | 0.0027 |
| 12:00-13:00 HOUR | 0.0027 | 0.0028 | 0.0026 |
| 13:00-14:00 HOUR | 0.0033 | 0.0033 | 0.0025 |
| 14:00-15:00 HOUR | 0.0028 | 0.0032 | 0.0029 |
| 15:00-16:00 HOUR | 0.0032 | 0.0030 | 0.0025 |
| 16:00-17:00 HOUR | 0.0025 | 0.0027 | 0.0030 |
| 17:00-18:00 HOUR | 0.0028 | 0.0031 | 0.0026 |
| 18:00-19:00 HOUR | 0.0026 | 0.0027 | 0.0025 |
| 19:00-20:00 HOUR | 0.0033 | 0.0033 | 0.0026 |
| 20:00-21:00 HOUR | 0.0032 | 0.0031 | 0.0027 |
| 21:00-22:00 HOUR | 0.0031 | 0.0030 | 0.0027 |
| 22:00-23:00 HOUR | 0.0029 | 0.0027 | 0.0032 |
| 23:00-00:00 HOUR | 0.0025 | 0.0028 | 0.0032 |
| 00:00-01:00 HOUR | 0.0028 | 0.0026 | 0.0030 |
| 01:00-02:00 HOUR | 0.0026 | 0.0025 | 0.0028 |
| 02:00-03:00 HOUR | 0.0028 | 0.0026 | 0.0027 |
| 03:00-04:00 HOUR | 0.0028 | 0.0024 | 0.0023 |
| 04:00-05:00 HOUR | 0.0026 | 0.0029 | 0.0025 |
| 05:00-06:00 HOUR | 0.0028 | 0.0030 | 0.0024 |
| 06:00-07:00 HOUR | 0.0029 | 0.0032 | 0.0030 |
| AVERAGE 24 HOUR | 0.0029 | 0.0029 | 0.0028 |



| เวลา * | RESULT (ppm) | | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | SULPHUR DIOXIDE | | | |
| | K.U.STATION | | | |
| | NOVEMBER 13-14, 2022 T22AW987-0025 | NOVEMBER 14-15, 2022 T22AW987-0026 | NOVEMBER 15-16, 2022 T22AW987-0027 | NOVEMBER 16-17, 2022 T22AW987-0028 |
| 07:00-08:00 HOUR | 0.0027 | 0.0029 | 0.0029 | 0.0025 |
| 08:00-09:00 HOUR | 0.0025 | 0.0034 | 0.0030 | 0.0028 |
| 09:00-10:00 HOUR | 0.0029 | 0.0027 | 0.0031 | 0.0027 |
| 10:00-11:00 HOUR | 0.0028 | 0.0029 | 0.0030 | 0.0026 |
| 11:00-12:00 HOUR | 0.0025 | 0.0028 | 0.0032 | 0.0026 |
| 12:00-13:00 HOUR | 0.0031 | 0.0030 | 0.0032 | 0.0033 |
| 13:00-14:00 HOUR | 0.0033 | 0.0027 | 0.0031 | 0.0032 |
| 14:00-15:00 HOUR | 0.0028 | 0.0034 | 0.0030 | 0.0030 |
| 15:00-16:00 HOUR | 0.0030 | 0.0026 | 0.0031 | 0.0028 |
| 16:00-17:00 HOUR | 0.0025 | 0.0028 | 0.0029 | 0.0032 |
| 17:00-18:00 HOUR | 0.0032 | 0.0032 | 0.0027 | 0.0029 |
| 18:00-19:00 HOUR | 0.0026 | 0.0030 | 0.0032 | 0.0027 |
| 19:00-20:00 HOUR | 0.0028 | 0.0031 | 0.0027 | 0.0034 |
| 20:00-21:00 HOUR | 0.0032 | 0.0034 | 0.0027 | 0.0033 |
| 21:00-22:00 HOUR | 0.0026 | 0.0031 | 0.0032 | 0.0031 |
| 22:00-23:00 HOUR | 0.0031 | 0.0026 | 0.0029 | 0.0033 |
| 23:00-00:00 HOUR | 0.0025 | 0.0030 | 0.0028 | 0.0032 |
| 00:00-01:00 HOUR | 0.0034 | 0.0033 | 0.0027 | 0.0027 |
| 01:00-02:00 HOUR | 0.0027 | 0.0029 | 0.0026 | 0.0028 |
| 02:00-03:00 HOUR | 0.0030 | 0.0031 | 0.0027 | 0.0025 |
| 03:00-04:00 HOUR | 0.0033 | 0.0030 | 0.0029 | 0.0024 |
| 04:00-05:00 HOUR | 0.0029 | 0.0024 | 0.0026 | 0.0027 |
| 05:00-06:00 HOUR | 0.0031 | 0.0026 | 0.0024 | 0.0029 |
| 06:00-07:00 HOUR | 0.0025 | 0.0028 | 0.0027 | 0.0030 |
| AVERAGE 24 HOUR | 0.0029 | 0.0029 | 0.0029 | 0.0029 |

(MR SILA BANJONGJAIKUK)
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : REFINERY GATE
SAMPLE TYPE : AMBIENT
SAMPLING DATE : *, **, ***
SAMPLING TIME : *, **, ***
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIET
ANALYZED BY : MISS JETJARIN TUMSA-AT
RECEIVED DATE : NOVEMBER 17, 2022
ANALYTICAL DATE : NOVEMBER 17-23, 2022
REPORT NO. : 2022-U093659
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0001 - T22AW987-0003

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | | |
|--|-------------------|----------------------------------|--------------------|---------------------|----------------------|
| | | | REFINERY GATE | | |
| | | | * T22AW987-0001 | ** T22AW987-0002 | *** T22AW987-0003 |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.067 | 0.051 | 0.050 |
| PARTICULATE MATTER ($\leq 10 \mu\text{m}$) | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.044 | 0.040 | 0.034 |
| SAMPLE CONDITION | | | COMPLETE | COMPLETE | COMPLETE |

REMARK

TSP, PM10 : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
TSP : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX B.
PM10 : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX J.
* : SAMPLING FROM 08:30 HOUR ON NOVEMBER 10, 2022 TO 08:30 HOUR ON NOVEMBER 11, 2022.
** : SAMPLING FROM 08:30 HOUR ON NOVEMBER 11, 2022 TO 08:30 HOUR ON NOVEMBER 12, 2022.
*** : SAMPLING FROM 08:30 HOUR ON NOVEMBER 12, 2022 TO 08:30 HOUR ON NOVEMBER 13, 2022.



(MISS BUDSARORN LERDYANOMAS)
LABORATORY SUPERVISOR

NOVEMBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : REFINERY GATE
SAMPLE TYPE : AMBIENT
SAMPLING DATE : *, **, ***, ****
SAMPLING TIME : *, **, ***, ****
SAMPLING BY : MR SIRAPAT JONGPHADUNGKIET
ANALYZED BY : MISS JETJARIN TUMSA-AT

RECEIVED DATE : NOVEMBER 17, 2022
ANALYTICAL DATE : NOVEMBER 17-23, 2022
REPORT NO. : 2022-U093660
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0004 - T22AW987-0007

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | | | |
|------------------------------|-------------------|----------------------------------|---------------|---------------|---------------|---------------|
| | | | REFINERY GATE | | | |
| | | | * | ** | *** | **** |
| | | | T22AW987-0004 | T22AW987-0005 | T22AW987-0006 | T22AW987-0007 |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.046 | 0.051 | 0.082 | 0.052 |
| PARTICULATE MATTER (≤ 10 µm) | mg/m ³ | GRAVIMETRIC (HIGH VOLUME METHOD) | 0.017 | 0.030 | 0.065 | 0.042 |
| SAMPLE CONDITION | | | COMPLETE | COMPLETE | COMPLETE | COMPLETE |

REMARK

TSP, PM10 : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE.
TSP : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX B.
PM10 : US EPA, CODE OF FEDERAL REGULATION SEARCH RESULTS, 40 CFR-CHAPTER I PART 50, APPENDIX J.
* : SAMPLING FROM 08:30 HOUR ON NOVEMBER 13, 2022 TO 08:30 HOUR ON NOVEMBER 14, 2022.
** : SAMPLING FROM 08:30 HOUR ON NOVEMBER 14, 2022 TO 08:30 HOUR ON NOVEMBER 15, 2022.
*** : SAMPLING FROM 08:30 HOUR ON NOVEMBER 15, 2022 TO 08:30 HOUR ON NOVEMBER 16, 2022.
**** : SAMPLING FROM 08:30 HOUR ON NOVEMBER 16, 2022 TO 08:30 HOUR ON NOVEMBER 17, 2022.

LABORATORY SUPERVISOR

NOVEMBER 28, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
MEASURING PLACE : REFINERY GATE
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : NOVEMBER 10-17, 2022
MEASURING TIME : *
MEASURING METHOD : CHEMILUMINESCENCE
MEASURED BY : MR SIRAPAT JONGPHADUNGKIET

RECEIVED DATE : NOVEMBER 10-17, 2022
ANALYTICAL DATE : NOVEMBER 10-17, 2022
REPORT NO. : 2022-U092883
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0001 - T22AW987-0007

| TIME * | RESULT (ppm) | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | NITROGEN DIOXIDE | | |
| | REFINERY GATE | | |
| | NOVEMBER 10-11, 2022 T22AW987-0001 | NOVEMBER 11-12, 2022 T22AW987-0002 | NOVEMBER 12-13, 2022 T22AW987-0003 |
| 07:00-08:00 HOUR | 0.0253 | 0.0225 | 0.0259 |
| 08:00-09:00 HOUR | 0.0261 | 0.0257 | 0.0247 |
| 09:00-10:00 HOUR | 0.0247 | 0.0259 | 0.0232 |
| 10:00-11:00 HOUR | 0.0253 | 0.0250 | 0.0239 |
| 11:00-12:00 HOUR | 0.0233 | 0.0262 | 0.0230 |
| 12:00-13:00 HOUR | 0.0253 | 0.0271 | 0.0260 |
| 13:00-14:00 HOUR | 0.0276 | 0.0270 | 0.0256 |
| 14:00-15:00 HOUR | 0.0256 | 0.0264 | 0.0242 |
| 15:00-16:00 HOUR | 0.0270 | 0.0225 | 0.0230 |
| 16:00-17:00 HOUR | 0.0232 | 0.0272 | 0.0232 |
| 17:00-18:00 HOUR | 0.0257 | 0.0250 | 0.0249 |
| 18:00-19:00 HOUR | 0.0241 | 0.0253 | 0.0225 |
| 19:00-20:00 HOUR | 0.0238 | 0.0260 | 0.0273 |
| 20:00-21:00 HOUR | 0.0265 | 0.0257 | 0.0226 |
| 21:00-22:00 HOUR | 0.0233 | 0.0273 | 0.0251 |
| 22:00-23:00 HOUR | 0.0240 | 0.0257 | 0.0260 |
| 23:00-00:00 HOUR | 0.0230 | 0.0227 | 0.0255 |
| 00:00-01:00 HOUR | 0.0235 | 0.0260 | 0.0252 |
| 01:00-02:00 HOUR | 0.0242 | 0.0258 | 0.0262 |
| 02:00-03:00 HOUR | 0.0252 | 0.0278 | 0.0230 |
| 03:00-04:00 HOUR | 0.0244 | 0.0270 | 0.0274 |
| 04:00-05:00 HOUR | 0.0256 | 0.0273 | 0.0266 |
| 05:00-06:00 HOUR | 0.0260 | 0.0257 | 0.0260 |
| 06:00-07:00 HOUR | 0.0236 | 0.0244 | 0.0268 |



| TIME * | RESULT (ppm) | | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | NITROGEN DIOXIDE | | | |
| | REFINERY GATE | | | |
| | NOVEMBER 13-14, 2022 T22AW987-0004 | NOVEMBER 14-15, 2022 T22AW987-0005 | NOVEMBER 15-16, 2022 T22AW987-0006 | NOVEMBER 16-17, 2022 T22AW987-0007 |
| 07:00-08:00 HOUR | 0.0265 | 0.0245 | 0.0273 | 0.0259 |
| 08:00-09:00 HOUR | 0.0276 | 0.0274 | 0.0248 | 0.0227 |
| 09:00-10:00 HOUR | 0.0258 | 0.0238 | 0.0226 | 0.0252 |
| 10:00-11:00 HOUR | 0.0266 | 0.0241 | 0.0259 | 0.0252 |
| 11:00-12:00 HOUR | 0.0269 | 0.0247 | 0.0265 | 0.0249 |
| 12:00-13:00 HOUR | 0.0239 | 0.0238 | 0.0235 | 0.0232 |
| 13:00-14:00 HOUR | 0.0243 | 0.0237 | 0.0243 | 0.0262 |
| 14:00-15:00 HOUR | 0.0240 | 0.0274 | 0.0270 | 0.0264 |
| 15:00-16:00 HOUR | 0.0235 | 0.0235 | 0.0240 | 0.0274 |
| 16:00-17:00 HOUR | 0.0230 | 0.0238 | 0.0249 | 0.0246 |
| 17:00-18:00 HOUR | 0.0272 | 0.0242 | 0.0273 | 0.0234 |
| 18:00-19:00 HOUR | 0.0262 | 0.0254 | 0.0246 | 0.0269 |
| 19:00-20:00 HOUR | 0.0233 | 0.0251 | 0.0259 | 0.0262 |
| 20:00-21:00 HOUR | 0.0250 | 0.0225 | 0.0249 | 0.0242 |
| 21:00-22:00 HOUR | 0.0242 | 0.0256 | 0.0258 | 0.0267 |
| 22:00-23:00 HOUR | 0.0269 | 0.0237 | 0.0265 | 0.0271 |
| 23:00-00:00 HOUR | 0.0240 | 0.0256 | 0.0244 | 0.0268 |
| 00:00-01:00 HOUR | 0.0262 | 0.0264 | 0.0262 | 0.0262 |
| 01:00-02:00 HOUR | 0.0238 | 0.0268 | 0.0260 | 0.0243 |
| 02:00-03:00 HOUR | 0.0250 | 0.0236 | 0.0275 | 0.0256 |
| 03:00-04:00 HOUR | 0.0252 | 0.0247 | 0.0244 | 0.0252 |
| 04:00-05:00 HOUR | 0.0233 | 0.0275 | 0.0268 | 0.0256 |
| 05:00-06:00 HOUR | 0.0268 | 0.0248 | 0.0234 | 0.0239 |
| 06:00-07:00 HOUR | 0.0258 | 0.0244 | 0.0248 | 0.0235 |

(MR. SILA BANJONGJAIKUK)
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
MEASURING PLACE : REFINERY GATE
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : NOVEMBER 10-17, 2022
MEASURING TIME : *
MEASURING METHOD : UV FLUORESCENCE
MEASURED BY : MR SIRAPAT JONGPHADUNGKIET

RECEIVED DATE : NOVEMBER 10-17, 2022
ANALYTICAL DATE : NOVEMBER 10-17, 2022
REPORT NO. : 2022-U092887
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0001 - T22AW987-0007

| เวลา * | RESULT (ppm) | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | SULPHUR DIOXIDE | | |
| | REFINERY GATE | | |
| | NOVEMBER 10-11, 2022 T22AW987-0001 | NOVEMBER 11-12, 2022 T22AW987-0002 | NOVEMBER 12-13, 2022 T22AW987-0003 |
| 07:00-08:00 HOUR | 0.0041 | 0.0042 | 0.0043 |
| 08:00-09:00 HOUR | 0.0043 | 0.0045 | 0.0044 |
| 09:00-10:00 HOUR | 0.0041 | 0.0042 | 0.0045 |
| 10:00-11:00 HOUR | 0.0042 | 0.0044 | 0.0044 |
| 11:00-12:00 HOUR | 0.0043 | 0.0045 | 0.0042 |
| 12:00-13:00 HOUR | 0.0041 | 0.0044 | 0.0041 |
| 13:00-14:00 HOUR | 0.0040 | 0.0043 | 0.0044 |
| 14:00-15:00 HOUR | 0.0041 | 0.0042 | 0.0041 |
| 15:00-16:00 HOUR | 0.0042 | 0.0044 | 0.0040 |
| 16:00-17:00 HOUR | 0.0038 | 0.0042 | 0.0041 |
| 17:00-18:00 HOUR | 0.0032 | 0.0040 | 0.0042 |
| 18:00-19:00 HOUR | 0.0033 | 0.0039 | 0.0043 |
| 19:00-20:00 HOUR | 0.0031 | 0.0038 | 0.0041 |
| 20:00-21:00 HOUR | 0.0033 | 0.0036 | 0.0040 |
| 21:00-22:00 HOUR | 0.0032 | 0.0033 | 0.0039 |
| 22:00-23:00 HOUR | 0.0032 | 0.0032 | 0.0037 |
| 23:00-00:00 HOUR | 0.0032 | 0.0032 | 0.0033 |
| 00:00-01:00 HOUR | 0.0035 | 0.0036 | 0.0032 |
| 01:00-02:00 HOUR | 0.0030 | 0.0031 | 0.0031 |
| 02:00-03:00 HOUR | 0.0037 | 0.0032 | 0.0037 |
| 03:00-04:00 HOUR | 0.0038 | 0.0037 | 0.0031 |
| 04:00-05:00 HOUR | 0.0031 | 0.0034 | 0.0039 |
| 05:00-06:00 HOUR | 0.0041 | 0.0041 | 0.0035 |
| 06:00-07:00 HOUR | 0.0043 | 0.0042 | 0.0036 |
| AVERAGE 24 HOUR | 0.0037 | 0.0039 | 0.0039 |



| เวลา * | RESULT (ppm) | | | |
|------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | SULPHUR DIOXIDE | | | |
| | REFINERY GATE | | | |
| | NOVEMBER 13-14, 2022 T22AW987-0004 | NOVEMBER 14-15, 2022 T22AW987-0005 | NOVEMBER 15-16, 2022 T22AW987-0006 | NOVEMBER 16-17, 2022 T22AW987-0007 |
| 07:00-08:00 HOUR | 0.0037 | 0.0038 | 0.0038 | 0.0041 |
| 08:00-09:00 HOUR | 0.0036 | 0.0039 | 0.0030 | 0.0042 |
| 09:00-10:00 HOUR | 0.0039 | 0.0041 | 0.0033 | 0.0043 |
| 10:00-11:00 HOUR | 0.0042 | 0.0043 | 0.0036 | 0.0042 |
| 11:00-12:00 HOUR | 0.0044 | 0.0042 | 0.0041 | 0.0041 |
| 12:00-13:00 HOUR | 0.0042 | 0.0044 | 0.0033 | 0.0040 |
| 13:00-14:00 HOUR | 0.0041 | 0.0045 | 0.0041 | 0.0041 |
| 14:00-15:00 HOUR | 0.0036 | 0.0042 | 0.0034 | 0.0043 |
| 15:00-16:00 HOUR | 0.0037 | 0.0039 | 0.0030 | 0.0039 |
| 16:00-17:00 HOUR | 0.0034 | 0.0037 | 0.0041 | 0.0035 |
| 17:00-18:00 HOUR | 0.0036 | 0.0038 | 0.0032 | 0.0037 |
| 18:00-19:00 HOUR | 0.0042 | 0.0042 | 0.0035 | 0.0030 |
| 19:00-20:00 HOUR | 0.0037 | 0.0038 | 0.0035 | 0.0036 |
| 20:00-21:00 HOUR | 0.0030 | 0.0033 | 0.0031 | 0.0039 |
| 21:00-22:00 HOUR | 0.0035 | 0.0034 | 0.0035 | 0.0035 |
| 22:00-23:00 HOUR | 0.0040 | 0.0036 | 0.0033 | 0.0038 |
| 23:00-00:00 HOUR | 0.0036 | 0.0033 | 0.0038 | 0.0034 |
| 00:00-01:00 HOUR | 0.0034 | 0.0036 | 0.0032 | 0.0036 |
| 01:00-02:00 HOUR | 0.0036 | 0.0033 | 0.0030 | 0.0034 |
| 02:00-03:00 HOUR | 0.0041 | 0.0035 | 0.0035 | 0.0032 |
| 03:00-04:00 HOUR | 0.0038 | 0.0037 | 0.0038 | 0.0034 |
| 04:00-05:00 HOUR | 0.0031 | 0.0040 | 0.0033 | 0.0036 |
| 05:00-06:00 HOUR | 0.0039 | 0.0038 | 0.0037 | 0.0038 |
| 06:00-07:00 HOUR | 0.0037 | 0.0030 | 0.0041 | 0.0039 |
| AVERAGE 24 HOUR | 0.0038 | 0.0038 | 0.0035 | 0.0038 |

(M) 
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ทิศทางและความเร็วลม

ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
MEASURING PLACE : BAN AO UDOM
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : NOVEMBER 10-17, 2022
MEASURING TIME : *
MEASURING METHOD : WIND SPEED & WIND DIRECTION EQUIPMENT
MEASURED BY : MR SIRAPAT JONGPHADUNGKIET

RECEIVED DATE : NOVEMBER 10-17, 2022
ANALYTICAL DATE : NOVEMBER 10-17, 2022
REPORT NO. : 2022-U092892
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0008 - T22AW987-0014

| TIME * | RESULT (m/s) | | | | | |
|------------------|---------------------------------------|----------------|---------------------------------------|----------------|---------------------------------------|----------------|
| | BAN AO UDOM | | | | | |
| | NOVEMBER 10-11, 2022 T22AW987-0008 | | NOVEMBER 11-12, 2022 T22AW987-0009 | | NOVEMBER 12-13, 2022 T22AW987-0010 | |
| | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION |
| 07:00-08:00 HOUR | 2.5 | NE | 1.3 | NE | 1.0 | NE |
| 08:00-09:00 HOUR | 2.6 | NE | 1.2 | N | 2.8 | N |
| 09:00-10:00 HOUR | 2.8 | ENE | 0.3 | E | 2.1 | NE |
| 10:00-11:00 HOUR | 3.3 | NNE | 3.0 | NNE | 0.8 | NE |
| 11:00-12:00 HOUR | 1.2 | ENE | 0.3 | NNE | 0.7 | NNE |
| 12:00-13:00 HOUR | 3.3 | E | 2.4 | ENE | 2.9 | E |
| 13:00-14:00 HOUR | 3.3 | NNE | 1.1 | NNE | 3.0 | ENE |
| 14:00-15:00 HOUR | 2.9 | NE | 1.6 | ENE | 2.0 | E |
| 15:00-16:00 HOUR | 1.0 | NNE | 3.1 | N | 1.3 | E |
| 16:00-17:00 HOUR | 2.0 | NE | 0.5 | E | 1.7 | E |
| 17:00-18:00 HOUR | 2.2 | ENE | 2.5 | E | 2.4 | ESE |
| 18:00-19:00 HOUR | 2.8 | NNE | 2.4 | ENE | 2.7 | SE |
| 19:00-20:00 HOUR | 1.2 | NNE | 1.2 | NE | 3.3 | E |
| 20:00-21:00 HOUR | 1.6 | E | 1.8 | N | 1.3 | ESE |
| 21:00-22:00 HOUR | 2.2 | E | 2.1 | NNE | 1.9 | SSE |
| 22:00-23:00 HOUR | 1.5 | NNE | 1.0 | ENE | 2.0 | SE |
| 23:00-00:00 HOUR | 2.0 | N | 3.0 | ENE | 0.7 | SE |
| 00:00-01:00 HOUR | 2.5 | NE | 1.0 | NE | 3.1 | SE |
| 01:00-02:00 HOUR | 0.8 | NNE | 2.6 | NNE | 3.4 | SE |
| 02:00-03:00 HOUR | 2.9 | ENE | 3.1 | N | 3.2 | ESE |
| 03:00-04:00 HOUR | 3.0 | E | 2.5 | NE | 2.1 | E |
| 04:00-05:00 HOUR | 1.1 | E | 2.9 | NNE | 1.2 | E |
| 05:00-06:00 HOUR | 0.7 | N | 1.9 | N | 2.8 | E |
| 06:00-07:00 HOUR | 1.9 | E | 0.6 | ENE | 3.1 | ENE |



| TIME * | RESULT (m/s) | | | | | | | |
|------------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|
| | BAN AO UDOM | | | | | | | |
| | NOVEMBER 13-14, 2022 | | NOVEMBER 14-15, 2022 | | NOVEMBER 15-16, 2022 | | NOVEMBER 16-17, 2022 | |
| | T22AW987-0011 | | T22AW987-0012 | | T22AW987-0013 | | T22AW987-0014 | |
| | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION |
| 07:00-08:00 HOUR | 2.9 | ENE | 1.0 | N | 0.4 | NNE | 1.3 | NE |
| 08:00-09:00 HOUR | 2.1 | ENE | 2.1 | ENE | 1.7 | ENE | 2.8 | ENE |
| 09:00-10:00 HOUR | 2.0 | NNE | 2.5 | E | 1.2 | NE | 2.6 | N |
| 10:00-11:00 HOUR | 0.7 | E | 1.9 | N | 2.5 | NNE | 0.4 | NE |
| 11:00-12:00 HOUR | 0.3 | NE | 2.6 | NNE | 2.2 | NNE | 1.6 | ENE |
| 12:00-13:00 HOUR | 2.3 | NE | 1.6 | N | 1.7 | E | 2.6 | E |
| 13:00-14:00 HOUR | 2.1 | NE | 1.3 | N | 2.9 | NNE | 3.1 | NNE |
| 14:00-15:00 HOUR | 2.1 | ENE | 0.4 | NNE | 1.0 | NE | 0.8 | NNE |
| 15:00-16:00 HOUR | 1.8 | ENE | 0.3 | ENE | 0.8 | ENE | 2.2 | E |
| 16:00-17:00 HOUR | 0.4 | ENE | 0.7 | NE | 1.2 | ENE | 1.2 | NE |
| 17:00-18:00 HOUR | 0.9 | N | 0.9 | NNE | 2.0 | E | 3.1 | NE |
| 18:00-19:00 HOUR | 1.5 | NE | 2.6 | NNE | 2.0 | NE | 1.6 | NNE |
| 19:00-20:00 HOUR | 0.9 | E | 3.2 | NE | 0.6 | NNE | 2.1 | NNE |
| 20:00-21:00 HOUR | 0.4 | E | 3.2 | ENE | 0.5 | NE | 1.1 | NNE |
| 21:00-22:00 HOUR | 1.8 | NE | 3.0 | E | 1.6 | NE | 1.5 | NE |
| 22:00-23:00 HOUR | 0.7 | N | 0.6 | N | 2.2 | NNE | 2.8 | NE |
| 23:00-00:00 HOUR | 3.1 | N | 3.1 | ENE | 3.1 | E | 1.3 | ENE |
| 00:00-01:00 HOUR | 2.5 | E | 2.3 | NNE | 1.2 | NE | 2.0 | E |
| 01:00-02:00 HOUR | 0.6 | E | 1.1 | E | 3.3 | N | 0.6 | NE |
| 02:00-03:00 HOUR | 1.1 | NE | 1.8 | ENE | 2.7 | NNE | 3.0 | E |
| 03:00-04:00 HOUR | 0.5 | NNE | 2.7 | NE | 1.8 | NNE | 2.5 | NE |
| 04:00-05:00 HOUR | 3.2 | E | 2.6 | NE | 1.5 | NE | 3.3 | E |
| 05:00-06:00 HOUR | 2.8 | E | 1.4 | E | 1.4 | NE | 1.0 | ENE |
| 06:00-07:00 HOUR | 3.2 | E | 2.5 | NNE | 3.0 | NNE | 0.6 | ENE |

(MR SILA BANJONGJAIKUK)
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
MEASURING PLACE : LAM CHABANG PORT'S G
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : NOVEMBER 10-17, 2022
MEASURING TIME : *
MEASURING METHOD : WIND SPEED & WIND DIRECTION EQUIPMENT
MEASURED BY : MR SIRAPAT JONGPHADUNGKIET

RECEIVED DATE : NOVEMBER 10-17, 2022
ANALYTICAL DATE : NOVEMBER 10-17, 2022
REPORT NO. : 2022-U092893
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0015 - T22AW987-0021

| TIME * | RESULT (m/s) | | | | | |
|------------------|---------------------------------------|----------------|---------------------------------------|----------------|---------------------------------------|----------------|
| | LAM CHABANG PORT'S G | | | | | |
| | NOVEMBER 10-11, 2022 T22AW987-0015 | | NOVEMBER 11-12, 2022 T22AW987-0016 | | NOVEMBER 12-13, 2022 T22AW987-0017 | |
| | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION |
| 07:00-08:00 HOUR | 1.2 | N | 1.0 | E | 2.2 | E |
| 08:00-09:00 HOUR | 0.5 | N | 0.6 | E | 1.9 | NE |
| 09:00-10:00 HOUR | 1.0 | ENE | 1.2 | NE | 1.9 | NNE |
| 10:00-11:00 HOUR | 1.6 | ENE | 2.5 | NNE | 2.4 | NNE |
| 11:00-12:00 HOUR | 2.8 | N | 3.4 | NE | 2.9 | E |
| 12:00-13:00 HOUR | 1.7 | E | 1.0 | ENE | 2.1 | E |
| 13:00-14:00 HOUR | 2.7 | N | 3.1 | NE | 0.6 | NE |
| 14:00-15:00 HOUR | 1.0 | NNE | 0.5 | ENE | 0.5 | ENE |
| 15:00-16:00 HOUR | 0.5 | NE | 1.8 | ENE | 2.6 | NE |
| 16:00-17:00 HOUR | 1.3 | NNE | 3.2 | NNE | 2.5 | NE |
| 17:00-18:00 HOUR | 1.4 | NE | 3.3 | NNE | 1.4 | NE |
| 18:00-19:00 HOUR | 1.4 | NE | 0.8 | NE | 0.6 | ENE |
| 19:00-20:00 HOUR | 1.4 | NE | 2.0 | NE | 1.1 | ENE |
| 20:00-21:00 HOUR | 2.7 | E | 2.3 | ENE | 1.6 | ENE |
| 21:00-22:00 HOUR | 1.2 | ENE | 1.6 | E | 1.2 | NE |
| 22:00-23:00 HOUR | 1.6 | N | 2.2 | NE | 3.3 | ENE |
| 23:00-00:00 HOUR | 2.3 | ENE | 0.5 | NE | 1.1 | ENE |
| 00:00-01:00 HOUR | 1.5 | NE | 2.7 | NE | 0.8 | E |
| 01:00-02:00 HOUR | 2.7 | E | 1.4 | NE | 1.7 | ENE |
| 02:00-03:00 HOUR | 0.9 | E | 0.6 | ENE | 2.5 | N |
| 03:00-04:00 HOUR | 3.1 | E | 0.3 | E | 3.0 | NE |
| 04:00-05:00 HOUR | 2.6 | ENE | 0.6 | NNE | 2.6 | ENE |
| 05:00-06:00 HOUR | 2.6 | NNE | 1.1 | NNE | 1.7 | NE |
| 06:00-07:00 HOUR | 0.9 | E | 1.0 | NNE | 2.0 | NNE |



| TIME * | RESULT (m/s) | | | | | | | |
|------------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|
| | LAM CHABANG PORT'S G | | | | | | | |
| | NOVEMBER 13-14, 2022 | | NOVEMBER 14-15, 2022 | | NOVEMBER 15-16, 2022 | | NOVEMBER 16-17, 2022 | |
| | T22AW987-0018 | | T22AW987-0019 | | T22AW987-0020 | | T22AW987-0021 | |
| | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION |
| 07:00-08:00 HOUR | 1.6 | NNE | 3.4 | NNE | 1.2 | ENE | 2.0 | NE |
| 08:00-09:00 HOUR | 0.3 | NE | 1.9 | E | 0.6 | NE | 2.0 | NE |
| 09:00-10:00 HOUR | 2.7 | ENE | 1.4 | E | 2.9 | NNE | 2.1 | NNE |
| 10:00-11:00 HOUR | 3.0 | ENE | 3.4 | ENE | 1.0 | NNE | 1.4 | ENE |
| 11:00-12:00 HOUR | 1.1 | NE | 3.3 | NNE | 3.0 | NE | 2.4 | NE |
| 12:00-13:00 HOUR | 0.5 | NE | 0.9 | NE | 2.2 | E | 3.0 | N |
| 13:00-14:00 HOUR | 2.1 | NE | 3.0 | E | 2.5 | NE | 1.3 | NNE |
| 14:00-15:00 HOUR | 2.8 | ENE | 1.3 | E | 3.4 | E | 3.0 | E |
| 15:00-16:00 HOUR | 2.7 | NNE | 1.0 | NE | 2.7 | NNE | 1.6 | NE |
| 16:00-17:00 HOUR | 2.7 | E | 3.2 | E | 0.6 | ENE | 1.8 | NE |
| 17:00-18:00 HOUR | 0.3 | ENE | 2.3 | NE | 0.9 | NNE | 0.4 | NNE |
| 18:00-19:00 HOUR | 0.4 | NE | 2.0 | NNE | 1.5 | NE | 2.5 | E |
| 19:00-20:00 HOUR | 2.9 | N | 2.2 | NNE | 3.3 | N | 1.6 | NE |
| 20:00-21:00 HOUR | 2.5 | NE | 0.8 | E | 0.4 | ENE | 3.3 | NNE |
| 21:00-22:00 HOUR | 0.6 | NE | 2.1 | NNE | 1.1 | NNE | 2.6 | N |
| 22:00-23:00 HOUR | 2.2 | E | 3.0 | NE | 1.9 | NE | 3.0 | NE |
| 23:00-00:00 HOUR | 2.3 | N | 1.9 | ENE | 2.9 | NNE | 2.4 | E |
| 00:00-01:00 HOUR | 0.3 | E | 0.5 | N | 1.1 | ENE | 1.4 | E |
| 01:00-02:00 HOUR | 1.5 | NE | 2.6 | NE | 1.0 | NNE | 1.3 | NE |
| 02:00-03:00 HOUR | 0.9 | NNE | 0.3 | ENE | 1.9 | N | 0.9 | ENE |
| 03:00-04:00 HOUR | 2.9 | NNE | 3.0 | NE | 0.8 | NE | 3.1 | E |
| 04:00-05:00 HOUR | 2.4 | N | 2.0 | N | 2.4 | ENE | 3.1 | NNE |
| 05:00-06:00 HOUR | 0.8 | NE | 2.2 | ENE | 1.5 | ENE | 3.4 | E |
| 06:00-07:00 HOUR | 2.7 | NNE | 3.2 | E | 1.6 | NE | 3.1 | NNE |

.....
[Redacted Signature]
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
MEASURING PLACE : K.U.STATION
MEASURING TYPE : AMBIENT (AIR)
MEASURING DATE : NOVEMBER 10-17, 2022
MEASURING TIME : *
MEASURING METHOD : WIND SPEED & WIND DIRECTION EQUIPMENT
MEASURED BY : MR SIRAPAT JONGPHADUNGKIET

RECEIVED DATE : NOVEMBER 10-17, 2022
ANALYTICAL DATE : NOVEMBER 10-17, 2022
REPORT NO. : 2022-U092894
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW987-0022 - T22AW987-0028

| TIME * | RESULT (m/s) | | | | | |
|------------------|---------------------------------------|----------------|---------------------------------------|----------------|---------------------------------------|----------------|
| | K.U.STATION | | | | | |
| | NOVEMBER 10-11, 2022 T22AW987-0022 | | NOVEMBER 11-12, 2022 T22AW987-0023 | | NOVEMBER 12-13, 2022 T22AW987-0024 | |
| | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION |
| 07:00-08:00 HOUR | 1.4 | NNE | 0.3 | NNE | 1.6 | ENE |
| 08:00-09:00 HOUR | 0.7 | NE | 2.1 | ENE | 0.9 | N |
| 09:00-10:00 HOUR | 1.1 | NE | 0.7 | ENE | 1.6 | E |
| 10:00-11:00 HOUR | 0.5 | ENE | 2.5 | NNE | 0.7 | NNE |
| 11:00-12:00 HOUR | 0.8 | NE | 2.1 | N | 0.3 | ENE |
| 12:00-13:00 HOUR | 1.8 | NE | 0.3 | ENE | 1.6 | E |
| 13:00-14:00 HOUR | 0.5 | ENE | 1.9 | E | 0.9 | ENE |
| 14:00-15:00 HOUR | 2.7 | E | 3.4 | N | 0.7 | N |
| 15:00-16:00 HOUR | 1.1 | ENE | 3.1 | NE | 0.7 | NE |
| 16:00-17:00 HOUR | 2.2 | NNE | 1.1 | NNE | 2.7 | ENE |
| 17:00-18:00 HOUR | 2.9 | NNE | 1.4 | ENE | 1.4 | E |
| 18:00-19:00 HOUR | 1.1 | ENE | 0.4 | NE | 1.5 | SE |
| 19:00-20:00 HOUR | 3.2 | N | 2.3 | E | 0.4 | SSE |
| 20:00-21:00 HOUR | 2.0 | E | 0.8 | N | 0.3 | SE |
| 21:00-22:00 HOUR | 2.3 | NE | 2.4 | ENE | 2.9 | SSE |
| 22:00-23:00 HOUR | 2.8 | E | 2.2 | NNE | 1.7 | SE |
| 23:00-00:00 HOUR | 0.3 | NNE | 2.7 | E | 3.0 | SE |
| 00:00-01:00 HOUR | 2.6 | E | 0.7 | ENE | 1.1 | SE |
| 01:00-02:00 HOUR | 2.3 | ENE | 1.1 | N | 2.4 | SE |
| 02:00-03:00 HOUR | 2.3 | N | 1.5 | N | 2.5 | SE |
| 03:00-04:00 HOUR | 2.0 | E | 1.0 | E | 1.8 | SE |
| 04:00-05:00 HOUR | 1.7 | NE | 1.7 | E | 2.9 | SE |
| 05:00-06:00 HOUR | 1.6 | ENE | 1.3 | N | 2.0 | SE |
| 06:00-07:00 HOUR | 1.0 | E | 0.8 | E | 2.5 | SE |



| TIME * | RESULT (m/s) | | | | | | | |
|------------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|
| | K.U.STATION | | | | | | | |
| | NOVEMBER 13-14, 2022 | | NOVEMBER 14-15, 2022 | | NOVEMBER 15-16, 2022 | | NOVEMBER 16-17, 2022 | |
| | T22AW987-0025 | | T22AW987-0026 | | T22AW987-0027 | | T22AW987-0028 | |
| | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION |
| 07:00-08:00 HOUR | 3.3 | ESE | 2.5 | NE | 2.0 | NNE | 0.5 | NNW |
| 08:00-09:00 HOUR | 3.4 | ESE | 0.5 | E | 2.8 | ENE | 1.8 | NW |
| 09:00-10:00 HOUR | 2.6 | E | 2.7 | NE | 1.4 | NE | 1.7 | NNW |
| 10:00-11:00 HOUR | 2.6 | E | 1.9 | E | 2.7 | E | 0.9 | NNW |
| 11:00-12:00 HOUR | 0.7 | NNE | 2.3 | E | 2.7 | NNE | 3.0 | N |
| 12:00-13:00 HOUR | 2.1 | N | 0.3 | NE | 2.1 | E | 2.1 | N |
| 13:00-14:00 HOUR | 2.0 | NNE | 2.5 | ENE | 0.3 | NNE | 2.1 | NNE |
| 14:00-15:00 HOUR | 2.6 | ENE | 0.8 | E | 3.2 | NNE | 2.0 | E |
| 15:00-16:00 HOUR | 1.4 | NE | 1.4 | E | 1.0 | E | 1.1 | N |
| 16:00-17:00 HOUR | 2.8 | NE | 2.2 | NNE | 1.5 | E | 0.4 | NE |
| 17:00-18:00 HOUR | 1.8 | NE | 1.8 | NE | 0.3 | NNE | 2.0 | NE |
| 18:00-19:00 HOUR | 3.1 | NE | 1.5 | NE | 3.1 | NE | 2.2 | E |
| 19:00-20:00 HOUR | 0.9 | NNE | 1.9 | E | 3.3 | NNE | 0.6 | E |
| 20:00-21:00 HOUR | 1.2 | NE | 2.8 | NE | 2.7 | ENE | 0.9 | NNE |
| 21:00-22:00 HOUR | 1.3 | NE | 2.1 | NNE | 0.6 | NE | 0.4 | NE |
| 22:00-23:00 HOUR | 2.4 | ENE | 1.8 | N | 0.3 | E | 2.6 | NE |
| 23:00-00:00 HOUR | 1.1 | NE | 1.6 | ENE | 1.0 | N | 1.0 | NE |
| 00:00-01:00 HOUR | 2.9 | E | 0.8 | ENE | 1.7 | N | 0.4 | N |
| 01:00-02:00 HOUR | 0.5 | NE | 2.1 | NE | 2.5 | NNW | 1.9 | NE |
| 02:00-03:00 HOUR | 2.2 | ENE | 0.6 | E | 1.6 | NW | 2.0 | E |
| 03:00-04:00 HOUR | 1.4 | NE | 3.2 | ENE | 1.7 | NW | 1.1 | NNE |
| 04:00-05:00 HOUR | 2.0 | NE | 3.3 | NE | 2.6 | NW | 2.2 | NNE |
| 05:00-06:00 HOUR | 0.3 | NNE | 1.7 | ENE | 0.7 | NNW | 0.9 | NE |
| 06:00-07:00 HOUR | 3.3 | NNE | 0.5 | E | 0.7 | NW | 3.0 | ENE |

(MR SILA BANJONGJAIROK)
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ANALYSIS REPORT

| | | | |
|----------------------------|---|------------------------|---------------------------------|
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | RECEIVED DATE | : NOVEMBER 10-17, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | ANALYTICAL DATE | : NOVEMBER 10-17, 2022 |
| CONTACT INFORMATION | : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com | REPORT NO. | : 2022-U092891 |
| MEASURING PLACE | : REFINERY GATE | WORK NO. | : 2019-002022 |
| MEASURING TYPE | : AMBIENT (AIR) | ANALYSIS NO. | : T22AW987-0001 - T22AW987-0007 |
| MEASURING DATE | : NOVEMBER 10-17, 2022 | | |
| MEASURING TIME | : * | | |
| MEASURING METHOD | : WIND SPEED & WIND DIRECTION EQUIPMENT | | |
| MEASURED BY | : MR SIRAPAT JONGPHADUNGKIET | | |

| TIME * | RESULT (m/s) | | | | | |
|------------------|---------------------------------------|----------------|---------------------------------------|----------------|---------------------------------------|----------------|
| | REFINERY GATE | | | | | |
| | NOVEMBER 10-11, 2022 T22AW987-0001 | | NOVEMBER 11-12, 2022 T22AW987-0002 | | NOVEMBER 12-13, 2022 T22AW987-0003 | |
| | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION |
| 07:00-08:00 HOUR | 0.6 | NNE | 0.8 | NNE | 2.1 | ENE |
| 08:00-09:00 HOUR | 3.0 | NNE | 1.7 | ENE | 3.4 | ENE |
| 09:00-10:00 HOUR | 0.6 | NNE | 0.5 | ENE | 2.2 | NNE |
| 10:00-11:00 HOUR | 0.7 | ENE | 2.0 | NE | 1.1 | NE |
| 11:00-12:00 HOUR | 3.3 | E | 0.6 | E | 1.9 | E |
| 12:00-13:00 HOUR | 3.3 | ENE | 1.1 | ENE | 1.5 | ENE |
| 13:00-14:00 HOUR | 0.5 | NE | 1.1 | NE | 2.7 | N |
| 14:00-15:00 HOUR | 0.5 | N | 1.7 | E | 2.0 | NNE |
| 15:00-16:00 HOUR | 1.4 | E | 1.9 | N | 2.7 | NNE |
| 16:00-17:00 HOUR | 1.4 | ENE | 2.3 | ENE | 2.6 | NNE |
| 17:00-18:00 HOUR | 2.7 | NNE | 0.7 | E | 0.7 | ENE |
| 18:00-19:00 HOUR | 1.6 | NE | 1.8 | NE | 1.5 | ENE |
| 19:00-20:00 HOUR | 2.2 | NNE | 2.3 | NE | 2.0 | NNE |
| 20:00-21:00 HOUR | 1.4 | E | 1.9 | E | 0.5 | NE |
| 21:00-22:00 HOUR | 2.5 | NE | 2.9 | NE | 1.6 | NNE |
| 22:00-23:00 HOUR | 0.5 | E | 2.6 | ENE | 3.0 | N |
| 23:00-00:00 HOUR | 0.5 | NE | 2.2 | ENE | 1.3 | E |
| 00:00-01:00 HOUR | 1.6 | ENE | 2.2 | NE | 3.2 | N |
| 01:00-02:00 HOUR | 0.8 | N | 0.5 | NNE | 3.1 | NNW |
| 02:00-03:00 HOUR | 2.0 | E | 1.5 | ENE | 2.4 | NNW |
| 03:00-04:00 HOUR | 0.4 | ENE | 3.1 | E | 2.4 | NW |
| 04:00-05:00 HOUR | 2.6 | E | 2.5 | E | 1.3 | NNW |
| 05:00-06:00 HOUR | 2.8 | NE | 0.5 | NE | 0.7 | NNW |
| 06:00-07:00 HOUR | 3.0 | N | 0.7 | E | 2.2 | NW |



| TIME * | RESULT (m/s) | | | | | | | |
|------------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|
| | REFINERY GATE | | | | | | | |
| | NOVEMBER 13-14, 2022 | | NOVEMBER 14-15, 2022 | | NOVEMBER 15-16, 2022 | | NOVEMBER 16-17, 2022 | |
| | T22AW987-0004 | | T22AW987-0005 | | T22AW987-0006 | | T22AW987-0007 | |
| | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION | WIND SPEED | WIND DIRECTION |
| 07:00-08:00 HOUR | 1.0 | NW | 1.1 | NNE | 0.6 | NNE | 1.9 | ENE |
| 08:00-09:00 HOUR | 1.9 | ENE | 0.5 | NE | 1.7 | NNE | 2.4 | ENE |
| 09:00-10:00 HOUR | 2.5 | NE | 3.0 | E | 1.2 | E | 2.7 | ENE |
| 10:00-11:00 HOUR | 0.7 | E | 3.3 | E | 1.2 | NE | 2.0 | NNE |
| 11:00-12:00 HOUR | 1.0 | ENE | 0.3 | ESE | 0.5 | ENE | 3.3 | ENE |
| 12:00-13:00 HOUR | 3.3 | NE | 0.7 | SE | 1.0 | ENE | 1.6 | NE |
| 13:00-14:00 HOUR | 1.6 | E | 2.7 | ESE | 0.9 | E | 1.7 | ENE |
| 14:00-15:00 HOUR | 1.4 | ENE | 1.1 | SSE | 1.4 | NNE | 1.9 | NE |
| 15:00-16:00 HOUR | 2.2 | E | 3.4 | E | 1.6 | ENE | 1.9 | ENE |
| 16:00-17:00 HOUR | 2.6 | E | 3.0 | SSE | 2.8 | NNE | 0.5 | E |
| 17:00-18:00 HOUR | 2.8 | N | 3.3 | ESE | 1.6 | N | 1.4 | E |
| 18:00-19:00 HOUR | 3.2 | E | 1.3 | SE | 0.3 | NE | 2.9 | E |
| 19:00-20:00 HOUR | 2.3 | ENE | 0.5 | S | 2.0 | ENE | 2.2 | ENE |
| 20:00-21:00 HOUR | 2.2 | NE | 2.8 | S | 1.6 | N | 1.7 | NNE |
| 21:00-22:00 HOUR | 1.6 | ENE | 0.5 | SE | 1.1 | E | 2.1 | N |
| 22:00-23:00 HOUR | 1.8 | NNE | 2.3 | SSE | 0.5 | E | 0.7 | NNE |
| 23:00-00:00 HOUR | 2.1 | ENE | 0.3 | SE | 2.4 | NE | 3.0 | NNE |
| 00:00-01:00 HOUR | 2.1 | NE | 0.5 | ESE | 2.4 | E | 3.3 | NNE |
| 01:00-02:00 HOUR | 1.9 | NE | 2.1 | N | 0.7 | E | 3.4 | N |
| 02:00-03:00 HOUR | 0.8 | NNE | 0.8 | NNE | 2.7 | E | 3.3 | NE |
| 03:00-04:00 HOUR | 1.8 | NNE | 2.6 | NE | 1.1 | NNE | 1.2 | ENE |
| 04:00-05:00 HOUR | 3.1 | NE | 2.7 | E | 2.6 | ENE | 2.5 | ENE |
| 05:00-06:00 HOUR | 1.8 | ENE | 1.0 | E | 3.2 | ENE | 3.2 | NE |
| 06:00-07:00 HOUR | 0.5 | E | 2.4 | ENE | 1.5 | ENE | 0.5 | NNE |

(MR. [REDACTED])
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

คุณภาพอากาศจากปล่องระบายอากาศ

ANALYSIS REPORT

| | | | |
|----------------------------|---|------------------------|------------------------|
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | RECEIVED DATE | : NOVEMBER 14, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | ANALYTICAL DATE | : NOVEMBER 14-18, 2022 |
| CONTACT INFORMATION | : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com | REPORT NO. | : 2022-U092461 |
| SAMPLING SOURCE | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | WORK NO. | : 2019-002022 |
| SAMPLE TYPE | : STACK | ANALYSIS NO. | : T22AW636-0001 |
| SAMPLING DATE | : NOVEMBER 10, 2022 | | |
| SAMPLING TIME | : 11:50-13:10 HOUR | | |
| SAMPLING BY | : MR ATTHAPORN THEPTONG จ-145-ก-0008 | | |
| ANALYZED BY | : MISS SUWAN KONGTHONG จ-145-ก-0025 | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|---------------------------------------|-------------------|--|---|-----------|
| | | | CRUDE DISTILLATION FURNACE (F-101) T22AW636-0001 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | ISOKINETIC, GRAVIMETRIC METHOD (US EPA METHOD 5) | 0.90 | 0.83 |
| SULPHUR DIOXIDE | ppm | ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6) | < 1.30 | < 1.30 |
| OXIDE OF NITROGEN AS NITROGEN DIOXIDE | ppm | ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7) | 64.8 | 59.7 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|---------------------|---|
| | | CRUDE DISTILLATION FURNACE (F-101) T22AW636-0001 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 36 |
| STACK TEMPERATURE | °C | 342 |
| DIAMETER | m | 1.65 |
| GAS VELOCITY | m/s | 7.54 |
| FLOW RATE | Nm ³ /hr | 23,709.77 |
| OXYGEN | % | 5.8 |
| MOISTURE | % | 15.41 |
| CARBONDIOXIDE | % | 8.61 |
| VOLUME OF DRY GAS AT STP | m ³ | 0.893463 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
จ-145-ก-0011
NOVEMBER 23, 2022



ANALYSIS REPORT

| | | | |
|----------------------------|---|------------------------|------------------------|
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | RECEIVED DATE | : NOVEMBER 14, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | ANALYTICAL DATE | : NOVEMBER 14-18, 2022 |
| CONTACT INFORMATION | : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com | REPORT NO. | : 2022-U092462 |
| SAMPLING SOURCE | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | WORK NO. | : 2019-002022 |
| SAMPLE TYPE | : STACK | ANALYSIS NO. | : T22AW636-0002 |
| SAMPLING DATE | : NOVEMBER 10, 2022 | | |
| SAMPLING TIME | : 11:50-13:00 HOUR | | |
| SAMPLING BY | : MR ATTHAPORN THEPTONG จ-145-จ-0008 | | |
| ANALYZED BY | : MISS SUWAN KONGTHONG จ-145-ค-0025 | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|---------------------------------------|-------------------|--|---|-----------|
| | | | CRUDE DISTILLATION FURNACE (F-102) T22AW636-0002 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | ISOKINETIC, GRAVIMETRIC METHOD (US EPA METHOD 5) | 0.76 | 0.68 |
| SULPHUR DIOXIDE | ppm | ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6) | < 1.30 | < 1.30 |
| OXIDE OF NITROGEN AS NITROGEN DIOXIDE | ppm | ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7) | 43.2 | 38.4 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|---------------------|---|
| | | CRUDE DISTILLATION FURNACE (F-102) T22AW636-0002 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 34.08 |
| STACK TEMPERATURE | °C | 209.83 |
| DIAMETER | m | 1.52 |
| GAS VELOCITY | m/s | 6.6 |
| FLOW RATE | Nm ³ /hr | 24,084.63 |
| OXYGEN | % | 5.26 |
| MOISTURE | % | 9.08 |
| CARBONDIOXIDE | % | 8.92 |
| VOLUME OF DRY GAS AT STP | m ³ | 0.917477 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
จ-145-ค-0011
NOVEMBER 23, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : ESSO (THAILAND) PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : NOVEMBER 16, 2022
SAMPLING TIME : 10:30-11:40 HOUR
SAMPLING BY : MR PARINYA KLOMKLIAO ๓-145-๓-0039
ANALYZED BY : MISS SUWAN KONGTHONG ๓-145-๓-0025
RECEIVED DATE : NOVEMBER 17, 2022
ANALYTICAL DATE : NOVEMBER 17-23, 2022
REPORT NO. : 2022-U093913
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW936-0002

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|---------------------------------------|-------------------|--|---|-----------|
| | | | COMMON STACK OF BOILER 3&4 T22AW936-0002 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | ISOKINETIC, GRAVIMETRIC METHOD (US EPA METHOD 5) | 1.18 | 2.16 |
| SULPHUR DIOXIDE | ppm | ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6) | < 1.30 | < 1.30 |
| OXIDE OF NITROGEN AS NITROGEN DIOXIDE | ppm | ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7) | 17.3 | 31.7 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|---------------------|---|
| | | COMMON STACK OF BOILER 3&4 T22AW936-0002 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 29.83 |
| STACK TEMPERATURE | °C | 163.92 |
| DIAMETER | m | 1.32 |
| GAS VELOCITY | m/s | 13.87 |
| FLOW RATE | Nm ³ /hr | 41,892.23 |
| OXYGEN | % | 13.32 |
| MOISTURE | % | 9.85 |
| CARBONDIOXIDE | % | 4.1 |
| VOLUME OF DRY GAS AT STP | m ³ | 0.931047 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
๓-145-๓-0011
NOVEMBER 29, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn. apiwatananon@exxonmobil.com
SAMPLING SOURCE : ESSO (THAILAND) PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : NOVEMBER 15, 2022
SAMPLING TIME : 12:00-12:54 HOUR
SAMPLING BY : MR ATTHAPORN THEPTONG ๓-145-๓-0008
ANALYZED BY : MISS SUWAN KONGTHONG ๓-145-๓-0025

RECEIVED DATE : NOVEMBER 16, 2022
ANALYTICAL DATE : NOVEMBER 16-18, 2022
REPORT NO. : 2022-U091818
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW820-0003

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|-----------------------------|-------------------|--|-----------------------------------|-----------|
| | | | FCCU REGENERATOR T22AW820-0003 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | ISOKINETIC, GRAVIMETRIC METHOD (US EPA METHOD 5) | 31.6 | 22.6 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|---------------------|-----------------------------------|
| | | FCCU REGENERATOR T22AW820-0003 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 30.92 |
| STACK TEMPERATURE | °C | 265 |
| DIAMETER | m | 1.58 |
| GAS VELOCITY | m/s | 37.73 |
| FLOW RATE | Nm ³ /hr | 125,898.06 |
| OXYGEN | % | 1.44 |
| MOISTURE | % | 15.11 |
| CARBONDIOXIDE | % | 19.18 |
| VOLUME OF DRY GAS AT STP | m ³ | 0.930266 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
๓-145-๓-0011
NOVEMBER 23, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : ESSO (THAILAND) PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : NOVEMBER 15, 2022
SAMPLING TIME : 12:10-13:30 HOUR
SAMPLING BY : MR ATTHAPORN THEPTONG ๖-145-๑-0008
ANALYZED BY : MISS SUWAN KONGTHONG ๖-145-๑-0025

RECEIVED DATE : NOVEMBER 16, 2022
ANALYTICAL DATE : NOVEMBER 16-22, 2022
REPORT NO. : 2022-U092864
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW820-0003

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|---------------------------------------|------|--|-----------------------------------|-----------|
| | | | FCCU REGENERATOR T22AW820-0003 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| SULPHUR DIOXIDE | ppm | ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6) | 588 | 420 |
| OXIDE OF NITROGEN AS NITROGEN DIOXIDE | ppm | ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7) | 23.1 | 16.5 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|--------|-----------------------------------|
| | | FCCU REGENERATOR T22AW820-0003 |
| AMBIENT PRESSURE | mmHg. | 758 |
| AMBIENT TEMPERATURE | °C | 30.92 |
| STACK TEMPERATURE | °C | 265 |
| DIAMETER | m | 1.58 |
| GAS VELOCITY | m/s | 37.73 |
| FLOW RATE | Nm³/hr | 125,898.06 |
| OXYGEN | % | 1.44 |
| MOISTURE | % | 15.11 |
| CARBONDIOXIDE | % | 19.18 |
| VOLUME OF DRY GAS AT STP | m³ | 0.930266 |

REMARK
RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
๖-145-๑-0011
NOVEMBER 23, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : ESSO (THAILAND) PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : NOVEMBER 15, 2022
SAMPLING TIME : 12:15-12:45 HOUR
SAMPLING BY : MR ATTHAPORN THEPTONG
ANALYZED BY : MISS SUWAN KONGTHONG
RECEIVED DATE : NOVEMBER 16, 2022
ANALYTICAL DATE : NOVEMBER 16-22, 2022
REPORT NO. : 2022-U092866
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW820-0003

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|-------------------------|-------------------|---|-----------------------------------|-----------|
| | | | FCCU REGENERATOR T22AW820-0003 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| HYDROGEN CYANIDE | mg/m ³ | FILTERING, ION-SPECIFIC ELECTRODE METHOD (OSHA METHOD ID120) | < 0.20 | < 0.20 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|---------------------|-----------------------------------|
| | | FCCU REGENERATOR T22AW820-0003 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 30.92 |
| STACK TEMPERATURE | °C | 265 |
| DIAMETER | m | 1.58 |
| GAS VELOCITY | m/s | 37.73 |
| FLOW RATE | Nm ³ /hr | 125,898.06 |
| OXYGEN | % | 1.44 |
| MOISTURE | % | 15.11 |
| CARBONDIOXIDE | % | 19.18 |
| VOLUME OF DRY GAS AT STP | m ³ | 0.930266 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR

NOVEMBER 23, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : ESSO (THAILAND) PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : NOVEMBER 14, 2022
SAMPLING TIME : 10:50-11:38 HOUR
SAMPLING BY : MR ATTHAPORN THEPTONG ๓-145-๓-0008
ANALYZED BY : MISS SUWAN KONGTHONG ๓-145-๓-0025

RECEIVED DATE : NOVEMBER 16, 2022
ANALYTICAL DATE : NOVEMBER 16-18, 2022
REPORT NO. : 2022-U091819
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW820-0004

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|-----------------------------|-------------------|--|--|-----------|
| | | | COMMON STACK OF PAREX FURNACE T22AW820-0004 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| TOTAL SUSPENDED PARTICULATE | mg/m ³ | ISOKINETIC, GRAVIMETRIC METHOD (US EPA METHOD 5) | 0.87 | 0.74 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|---------------------|--|
| | | COMMON STACK OF PAREX FURNACE T22AW820-0004 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 32.08 |
| STACK TEMPERATURE | °C | 222 |
| DIAMETER | m | 3.65 |
| GAS VELOCITY | m/s | 6.47 |
| FLOW RATE | Nm ³ /hr | 125,095.35 |
| OXYGEN | % | 4.53 |
| MOISTURE | % | 14.39 |
| CARBONDIOXIDE | % | 9.34 |
| VOLUME OF DRY GAS AT STP | m ³ | 0.920633 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
๓-145-๓-0011
NOVEMBER 23, 2022



ANALYSIS REPORT

| | | | |
|----------------------------|---|------------------------|------------------------|
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | RECEIVED DATE | : NOVEMBER 16, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | ANALYTICAL DATE | : NOVEMBER 16-22, 2022 |
| CONTACT INFORMATION | : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com | REPORT NO. | : 2022-U092868 |
| SAMPLING SOURCE | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | WORK NO. | : 2019-002022 |
| SAMPLE TYPE | : STACK | ANALYSIS NO. | : T22AW820-0004 |
| SAMPLING DATE | : NOVEMBER 14, 2022 | | |
| SAMPLING TIME | : 11:00-12:10 HOUR | | |
| SAMPLING BY | : MR ATTAPORN THEPTONG จ-145-ก-0008 | | |
| ANALYZED BY | : MISS SUWAN KONGTHONG จ-145-ค-0025 | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|---------------------------------------|------|--|--|-----------|
| | | | COMMON STACK OF PAREX FURNACE T22AW820-0004 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| SULPHUR DIOXIDE | ppm | ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6) | < 1.30 | < 1.30 |
| OXIDE OF NITROGEN AS NITROGEN DIOXIDE | ppm | ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7) | 13.2 | 11.2 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|--------|--|
| | | COMMON STACK OF PAREX FURNACE T22AW820-0004 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 32.08 |
| STACK TEMPERATURE | °C | 222 |
| DIAMETER | m | 3.65 |
| GAS VELOCITY | m/s | 6.47 |
| FLOW RATE | Nm³/hr | 125,095.35 |
| OXYGEN | % | 4.53 |
| MOISTURE | % | 14.39 |
| CARBONDIOXIDE | % | 9.34 |
| VOLUME OF DRY GAS AT STP | m³ | 0.920633 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
จ-145-ค-0011
NOVEMBER 23, 2022



ANALYSIS REPORT

| | | | |
|----------------------------|---|------------------------|------------------------|
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | RECEIVED DATE | : NOVEMBER 14, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | ANALYTICAL DATE | : NOVEMBER 14-18, 2022 |
| CONTACT INFORMATION | : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com | REPORT NO. | : 2022-U092463 |
| SAMPLING SOURCE | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | WORK NO. | : 2019-002022 |
| SAMPLE TYPE | : STACK | ANALYSIS NO. | : T22AW636-0003 |
| SAMPLING DATE | : NOVEMBER 11, 2022 | | |
| SAMPLING TIME | : 14:30-15:20 HOUR | | |
| SAMPLING BY | : MR ATTHAPORN THEPTONG ๓-145-๑-0008 | | |
| ANALYZED BY | : MISS SUWAN KONGTHONG ๓-145-๑-0025 | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|---------------------------------------|------|--|-------------------------------|-----------|
| | | | GTG-1+HRSG-1 T22AW636-0003 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| SULPHUR DIOXIDE | ppm | ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6) | < 1.30 | < 1.30 |
| OXIDE OF NITROGEN AS NITROGEN DIOXIDE | ppm | ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7) | 29.7 | 93.1 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|--------|-------------------------------|
| | | GTG-1+HRSG-1 T22AW636-0003 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 33.42 |
| STACK TEMPERATURE | °C | 206.5 |
| DIAMETER | m | 2.95 |
| GAS VELOCITY | m/s | 9.7 |
| FLOW RATE | Nm³/hr | 132,970.32 |
| OXYGEN | % | 16.47 |
| MOISTURE | % | 10.07 |
| CARBONDIOXIDE | % | 2.57 |
| VOLUME OF DRY GAS AT STP | m³ | 0.565491 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

.....
(MISS SUWAN KONGTHONG)
LABORATORY SUPERVISOR
๓-145-๑-0011
NOVEMBER 23, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : ESSO (THAILAND) PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : NOVEMBER 11, 2022
SAMPLING TIME : 14:30-15:20 HOUR
SAMPLING BY : MR ATTHAPORN THEPTONG ๓-145-๓-0008
ANALYZED BY : MISS SUWAN KONGTHONG ๓-145-๓-0025

RECEIVED DATE : NOVEMBER 14, 2022
ANALYTICAL DATE : NOVEMBER 14-18, 2022
REPORT NO. : 2022-U092464
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW636-0004

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|---------------------------------------|------|--|-------------------------------|-----------|
| | | | GTG-2+HRSG-2 T22AW636-0004 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| SULPHUR DIOXIDE | ppm | ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6) | < 1.30 | < 1.30 |
| OXIDE OF NITROGEN AS NITROGEN DIOXIDE | ppm | ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7) | 19.4 | 65.8 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|--------|-------------------------------|
| | | GTG-2+HRSG-2 T22AW636-0004 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 33 |
| STACK TEMPERATURE | °C | 204.75 |
| DIAMETER | m | 2.95 |
| GAS VELOCITY | m/s | 8.67 |
| FLOW RATE | Nm³/hr | 121,108.92 |
| OXYGEN | % | 16.8 |
| MOISTURE | % | 8.71 |
| CARBONDIOXIDE | % | 2.38 |
| VOLUME OF DRY GAS AT STP | m³ | 0.5875 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSARORN LERDPANOMAS)
LABORATORY SUPERVISOR
๓-145-๓-0011
NOVEMBER 23, 2022



ANALYSIS REPORT

| | | | |
|----------------------------|---|------------------------|-------------------------|
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | RECEIVED DATE | : SEPTEMBER 13, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | ANALYTICAL DATE | : SEPTEMBER 13-15, 2022 |
| CONTACT INFORMATION | : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com | REPORT NO. | : 2022-U073479 |
| SAMPLING SOURCE | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | WORK NO. | : 2019-002022 |
| SAMPLE TYPE | : STACK | ANALYSIS NO. | : T22AS049-0001 |
| SAMPLING DATE | : SEPTEMBER 12, 2022 | | |
| SAMPLING TIME | : 10:35-11:30 HOUR | | |
| SAMPLING BY | : MR ATTHAPORN THEPTONG ๖-145-๖-0008 | | |
| ANALYZED BY | : MISS SUWAN KONGTHONG ๖-145-๖-0025 | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|---------------------------------------|------|--|--------------------------------------|-----------|
| | | | GTG-3+HRSG-3 (5101) T22AS049-0001 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| SULPHUR DIOXIDE | ppm | ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6) | < 1.30 | < 1.30 |
| OXIDE OF NITROGEN AS NITROGEN DIOXIDE | ppm | ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7) | 15.6 | 50.7 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|--------|--------------------------------------|
| | | GTG-3+HRSG-3 (5101) T22AS049-0001 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 31 |
| STACK TEMPERATURE | °C | 210.25 |
| DIAMETER | m | 3.8 |
| GAS VELOCITY | m/s | 13.91 |
| FLOW RATE | Nm³/hr | 316,501.36 |
| OXYGEN | % | 16.63 |
| MOISTURE | % | 9.29 |
| CARBONDIOXIDE | % | 2.48 |
| VOLUME OF DRY GAS AT STP | m³ | 0.593911 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
๖-145-๖-0011
SEPTEMBER 21, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : ESSO (THAILAND) PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : NOVEMBER 14, 2022
SAMPLING TIME : 10:45-11:30 HOUR
SAMPLING BY : MR ATTHAPORN THEPTONG ๖-145-๓-0008
ANALYZED BY : MISS SUWAN KONGTHONG ๖-145-๓-0025

RECEIVED DATE : NOVEMBER 16, 2022
ANALYTICAL DATE : NOVEMBER 16-22, 2022
REPORT NO. : 2022-U092863
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW820-0002

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|---------------------------------------|------|--|---|-----------|
| | | | PLATFORMER FURNACE-1 (F-3401S) T22AW820-0002 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| SULPHUR DIOXIDE | ppm | ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6) | < 1.30 | < 1.30 |
| OXIDE OF NITROGEN AS NITROGEN DIOXIDE | ppm | ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7) | 23.8 | 18.9 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|--------|---|
| | | PLATFORMER FURNACE-1 (F-3401S) T22AW820-0002 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 32 |
| STACK TEMPERATURE | °C | 194.25 |
| DIAMETER | m | 2.52 |
| GAS VELOCITY | m/s | 8.31 |
| FLOW RATE | Nm³/hr | 77,128.78 |
| OXYGEN | % | 3.39 |
| MOISTURE | % | 18.63 |
| CARBONDIOXIDE | % | 9.98 |
| VOLUME OF DRY GAS AT STP | m³ | 0.596858 |

REMARK :

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
๖-145-๓-0011
NOVEMBER 23, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : ESSO (THAILAND) PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : NOVEMBER 15, 2022
SAMPLING TIME : 10:30-11:20 HOUR
SAMPLING BY : MR ATTHAPORN THEPTONG ๖-145-๖-0008
ANALYZED BY : MISS SUWAN KONGTHONG ๖-145-๖-0025

RECEIVED DATE : NOVEMBER 16, 2022
ANALYTICAL DATE : NOVEMBER 16-22, 2022
REPORT NO. : 2022-U092862
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW820-0001

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|---------------------------------------|------|--|--|-----------|
| | | | APS2/VPS2 : COMMON STACK OF CRUDE DISTILLATION FURNACE 2& VACUUM DISTILLATION FURNACE-2&NHF-2 FURNACE (F-3101 & F-3601 & F-3301) T22AW820-0001 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| SULPHUR DIOXIDE | ppm | ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6) | < 1.30 | < 1.30 |
| OXIDE OF NITROGEN AS NITROGEN DIOXIDE | ppm | ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7) | 32.7 | 29.1 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|--------|------------|
| | | |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 30.75 |
| STACK TEMPERATURE | °C | 340 |
| DIAMETER | m | 3.2 |
| GAS VELOCITY | m/s | 16.08 |
| FLOW RATE | Nm³/hr | 182,007.86 |
| OXYGEN | % | 5.24 |
| MOISTURE | % | 18.99 |
| CARBONDIOXIDE | % | 8.93 |
| VOLUME OF DRY GAS AT STP | m³ | 0.596584 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

LABORATORY SUPERVISOR
๖-145-๖-0011
NOVEMBER 23, 2022



ANALYSIS REPORT

CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com
SAMPLING SOURCE : ESSO (THAILAND) PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : NOVEMBER 16, 2022
SAMPLING TIME : 16:10-17:00 HOUR
SAMPLING BY : MR PARINYA KLOMKLIAO จ-145-ก-0039
ANALYZED BY : MISS SUWAN KONGTHONG จ-145-ก-0025

RECEIVED DATE : NOVEMBER 17, 2022
ANALYTICAL DATE : NOVEMBER 17-23, 2022
REPORT NO. : 2022-U093912
WORK NO. : 2019-002022
ANALYSIS NO. : T22AW936-0001

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | |
|---------------------------------------|------|--|---------------------------------------|-----------|
| | | | SRU/TGCU INCINERATOR T22AW936-0001 | |
| | | | ACTUAL OXYGEN | 7% OXYGEN |
| SULPHUR DIOXIDE | ppm | ABSORPTION, BARIUM-THORIN TITRIMETRIC METHOD AT SITE (US EPA METHOD 6) | 40.1 | 40.1 |
| OXIDE OF NITROGEN AS NITROGEN DIOXIDE | ppm | ABSORPTION, PHENOLDISULFONIC ACID METHOD (US EPA METHOD 7) | 9.04 | 9.04 |
| HYDROGEN SULPHIDE | ppm | ABSORPTION, IODOMETRIC METHOD AT SITE (US EPA METHOD 11) | < 5.75 | < 5.75 |
| SAMPLE CONDITION | | | COMPLETE | |

| DESCRIPTION | UNIT | RESULT |
|--------------------------|--------|---------------------------------------|
| | | SRU/TGCU INCINERATOR T22AW936-0001 |
| AMBIENT PRESSURE | mmHg | 758 |
| AMBIENT TEMPERATURE | °C | 29 |
| STACK TEMPERATURE | °C | 584.33 |
| DIAMETER | m | 1.71 |
| GAS VELOCITY | m/s | 11.76 |
| FLOW RATE | Nm³/hr | 30,016.75 |
| OXYGEN | % | 7 |
| MOISTURE | % | 10.48 |
| CARBONDIOXIDE | % | 7.89 |
| VOLUME OF DRY GAS AT STP | m³ | 0.600041 |

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

(MISS SUWAN KONGTHONG)
LABORATORY SUPERVISOR
จ-145-ก-0011
NOVEMBER 29, 2022



ระดับเสียงในบรรยากาศ

ANALYSIS REPORT

| | | | |
|----------------------------|---|------------------------|---------------------------------|
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | RECEIVED DATE | : NOVEMBER 10-13, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | ANALYTICAL DATE | : NOVEMBER 10-13, 2022 |
| CONTACT INFORMATION | : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com | REPORT NO. | : 2022-U092895 |
| MEASURING SOURCE | : BAN KON CHA-NANG | WORK NO. | : 2019-002022 |
| MEASURING TYPE | : AMBIENT (NOISE) | ANALYSIS NO. | : T22AW988-0001 - T22AW988-0003 |
| MEASURING DATE | : NOVEMBER 10-13, 2022 | | |
| MEASURING TIME | : * | | |
| MEASURING METHOD | : INTEGRATED SOUND LEVEL METER | | |
| MEASURED BY | : MR SIRAPAT JONGPHADUNGKIET | | |

| TIME* | RESULT dB(A) | | |
|---------------------------------|-------------------------|--------------------------|-------------------------|
| | BAN KON CHA-NANG | | |
| | NOVEMBER 10-11, 2022 | | |
| | T22AW988-0001 | | |
| | L _{Aeq} 1 hour | L _{Amax} 1 hour | L _{A90} 1 hour |
| 07:00-08:00 HOUR | 57.5 | 76.2 | 51.4 |
| 08:00-09:00 HOUR | 52.8 | 64.4 | 51.3 |
| 09:00-10:00 HOUR | 53.0 | 62.9 | 51.1 |
| 10:00-11:00 HOUR | 52.4 | 60.4 | 51.2 |
| 11:00-12:00 HOUR | 53.8 | 67.7 | 49.7 |
| 12:00-13:00 HOUR | 54.4 | 66.5 | 51.7 |
| 13:00-14:00 HOUR | 53.7 | 65.7 | 50.1 |
| 14:00-15:00 HOUR | 53.1 | 62.2 | 51.3 |
| 15:00-16:00 HOUR | 54.0 | 63.9 | 50.1 |
| 16:00-17:00 HOUR | 53.5 | 63.2 | 50.1 |
| 17:00-18:00 HOUR | 54.3 | 68.3 | 51.3 |
| 18:00-19:00 HOUR | 54.6 | 68.1 | 50.5 |
| 19:00-20:00 HOUR | 58.5 | 80.3 | 49.3 |
| 20:00-21:00 HOUR | 55.5 | 68.7 | 51.2 |
| 21:00-22:00 HOUR | 54.8 | 68.9 | 51.1 |
| 22:00-23:00 HOUR | 53.1 | 65.9 | 50.4 |
| 23:00-00:00 HOUR | 53.4 | 64.1 | 51.9 |
| 00:00-01:00 HOUR | 53.5 | 64.6 | 50.6 |
| 01:00-02:00 HOUR | 52.8 | 61.8 | 50.3 |
| 02:00-03:00 HOUR | 51.3 | 60.8 | 50.1 |
| 03:00-04:00 HOUR | 51.6 | 56.8 | 50.3 |
| 04:00-05:00 HOUR | 51.7 | 61.4 | 50.0 |
| 05:00-06:00 HOUR | 52.8 | 55.0 | 52.0 |
| 06:00-07:00 HOUR | 57.4 | 68.5 | 51.8 |
| L_{Aeq} 24 hours | | 54.3 | |



| TIME* | RESULT dB(A) | | |
|---------------------------|-------------------------|--------------------------|-------------------------|
| | BAN KON CHA-NANG | | |
| | NOVEMBER 11-12, 2022 | | |
| | T22AW988-0002 | | |
| | L _{Aeq} 1 hour | L _{Amax} 1 hour | L _{A90} 1 hour |
| 07:00-08:00 HOUR | 57.1 | 68.1 | 51.2 |
| 08:00-09:00 HOUR | 56.8 | 68.0 | 51.2 |
| 09:00-10:00 HOUR | 58.2 | 67.7 | 50.7 |
| 10:00-11:00 HOUR | 59.2 | 68.0 | 51.0 |
| 11:00-12:00 HOUR | 51.3 | 54.5 | 50.8 |
| 12:00-13:00 HOUR | 58.9 | 69.5 | 50.6 |
| 13:00-14:00 HOUR | 55.0 | 70.9 | 51.2 |
| 14:00-15:00 HOUR | 59.1 | 68.9 | 50.4 |
| 15:00-16:00 HOUR | 57.5 | 68.8 | 51.5 |
| 16:00-17:00 HOUR | 58.0 | 69.2 | 51.7 |
| 17:00-18:00 HOUR | 57.7 | 69.8 | 52.5 |
| 18:00-19:00 HOUR | 58.8 | 70.2 | 51.7 |
| 19:00-20:00 HOUR | 56.1 | 69.3 | 51.7 |
| 20:00-21:00 HOUR | 52.9 | 59.6 | 51.3 |
| 21:00-22:00 HOUR | 54.1 | 63.2 | 51.8 |
| 22:00-23:00 HOUR | 53.5 | 61.9 | 52.2 |
| 23:00-00:00 HOUR | 54.8 | 63.3 | 52.4 |
| 00:00-01:00 HOUR | 50.2 | 52.4 | 49.5 |
| 01:00-02:00 HOUR | 51.2 | 58.5 | 49.9 |
| 02:00-03:00 HOUR | 50.4 | 58.6 | 49.4 |
| 03:00-04:00 HOUR | 53.3 | 63.8 | 49.2 |
| 04:00-05:00 HOUR | 52.4 | 63.5 | 50.9 |
| 05:00-06:00 HOUR | 54.0 | 68.2 | 50.7 |
| 06:00-07:00 HOUR | 54.7 | 72.3 | 51.1 |
| L _{Aeq} 24 hours | | 56.1 | |

| TIME* | RESULT dB(A) | | |
|---------------------------|-------------------------|--------------------------|-------------------------|
| | BAN KON CHA-NANG | | |
| | NOVEMBER 12-13, 2022 | | |
| | T22AW988-0003 | | |
| | L _{Aeq} 1 hour | L _{Amax} 1 hour | L _{A90} 1 hour |
| 07:00-08:00 HOUR | 53.7 | 69.0 | 50.5 |
| 08:00-09:00 HOUR | 53.7 | 64.8 | 52.0 |
| 09:00-10:00 HOUR | 58.6 | 77.4 | 52.1 |
| 10:00-11:00 HOUR | 53.9 | 61.9 | 51.7 |
| 11:00-12:00 HOUR | 53.5 | 60.0 | 52.1 |
| 12:00-13:00 HOUR | 55.0 | 71.1 | 51.9 |
| 13:00-14:00 HOUR | 53.7 | 64.7 | 51.9 |
| 14:00-15:00 HOUR | 54.1 | 66.9 | 52.3 |
| 15:00-16:00 HOUR | 53.5 | 63.1 | 51.7 |
| 16:00-17:00 HOUR | 53.4 | 62.2 | 51.3 |
| 17:00-18:00 HOUR | 53.7 | 64.2 | 51.9 |
| 18:00-19:00 HOUR | 59.3 | 76.6 | 52.1 |
| 19:00-20:00 HOUR | 53.2 | 56.4 | 52.4 |
| 20:00-21:00 HOUR | 55.4 | 65.7 | 52.1 |
| 21:00-22:00 HOUR | 52.5 | 55.4 | 51.0 |
| 22:00-23:00 HOUR | 53.5 | 65.1 | 51.6 |
| 23:00-00:00 HOUR | 52.7 | 55.5 | 51.8 |
| 00:00-01:00 HOUR | 52.7 | 68.9 | 50.8 |
| 01:00-02:00 HOUR | 52.3 | 62.1 | 51.2 |
| 02:00-03:00 HOUR | 52.6 | 58.4 | 51.1 |
| 03:00-04:00 HOUR | 53.0 | 61.1 | 51.3 |
| 04:00-05:00 HOUR | 52.7 | 68.3 | 51.2 |
| 05:00-06:00 HOUR | 52.0 | 55.6 | 51.0 |
| 06:00-07:00 HOUR | 51.5 | 55.5 | 50.6 |
| L _{Aeq} 24 hours | | 54.2 | |

LABORATORY SUPERVISOR

NOVEMBER 22, 2022

ANALYSIS REPORT

| | | | |
|----------------------------|---|------------------------|---------------------------------|
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | RECEIVED DATE | : NOVEMBER 10-13, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | ANALYTICAL DATE | : NOVEMBER 10-13, 2022 |
| CONTACT INFORMATION | : TEL : 08 9692 4144 e-mail : paisarn.apiwatananon@exxonmobil.com | REPORT NO. | : 2022-U092896 |
| MEASURING SOURCE | : BAN NHONG AUNG | WORK NO. | : 2019-002022 |
| MEASURING TYPE | : AMBIENT (NOISE) | ANALYSIS NO. | : T22AW988-0004 - T22AW988-0006 |
| MEASURING DATE | : NOVEMBER 10-13, 2022 | | |
| MEASURING TIME | : * | | |
| MEASURING METHOD | : INTEGRATED SOUND LEVEL METER | | |
| MEASURED BY | : MR SIRAPAT JONGPHADUNGKIET | | |

| TIME* | RESULT dB(A) | | |
|---------------------------|-------------------------|--------------------------|-------------------------|
| | BAN NHONG AUNG | | |
| | NOVEMBER 10-11, 2022 | | |
| | T22AW988-0004 | | |
| | L _{Aeq} 1 hour | L _{Amax} 1 hour | L _{A90} 1 hour |
| 07:00-08:00 HOUR | 55.8 | 73.4 | 42.8 |
| 08:00-09:00 HOUR | 51.3 | 64.0 | 42.5 |
| 09:00-10:00 HOUR | 51.3 | 67.5 | 46.8 |
| 10:00-11:00 HOUR | 52.3 | 67.9 | 46.7 |
| 11:00-12:00 HOUR | 51.4 | 65.3 | 46.1 |
| 12:00-13:00 HOUR | 53.5 | 71.8 | 46.9 |
| 13:00-14:00 HOUR | 49.7 | 60.9 | 47.4 |
| 14:00-15:00 HOUR | 52.7 | 66.4 | 47.6 |
| 15:00-16:00 HOUR | 54.2 | 69.8 | 47.9 |
| 16:00-17:00 HOUR | 54.7 | 68.4 | 47.6 |
| 17:00-18:00 HOUR | 53.3 | 65.1 | 47.0 |
| 18:00-19:00 HOUR | 55.8 | 72.6 | 47.6 |
| 19:00-20:00 HOUR | 53.7 | 64.0 | 48.9 |
| 20:00-21:00 HOUR | 56.1 | 66.7 | 48.4 |
| 21:00-22:00 HOUR | 54.4 | 69.1 | 49.5 |
| 22:00-23:00 HOUR | 57.4 | 69.3 | 50.6 |
| 23:00-00:00 HOUR | 54.2 | 63.9 | 50.4 |
| 00:00-01:00 HOUR | 48.5 | 60.3 | 44.4 |
| 01:00-02:00 HOUR | 51.8 | 65.5 | 46.7 |
| 02:00-03:00 HOUR | 49.9 | 63.8 | 45.2 |
| 03:00-04:00 HOUR | 47.1 | 56.1 | 44.8 |
| 04:00-05:00 HOUR | 49.5 | 60.1 | 45.0 |
| 05:00-06:00 HOUR | 48.2 | 60.5 | 44.4 |
| 06:00-07:00 HOUR | 49.5 | 64.5 | 43.9 |
| L _{Aeq} 24 hours | | 53.2 | |



| TIME* | RESULT dB(A) | | |
|---------------------------|-------------------------|--------------------------|-------------------------|
| | BAN NHONG AUNG | | |
| | NOVEMBER 11-12, 2022 | | |
| | T22AW988-0005 | | |
| | L _{Aeq} 1 hour | L _{Amax} 1 hour | L _{A90} 1 hour |
| 07:00-08:00 HOUR | 51.2 | 67.8 | 44.3 |
| 08:00-09:00 HOUR | 53.7 | 65.7 | 50.0 |
| 09:00-10:00 HOUR | 54.5 | 69.4 | 48.1 |
| 10:00-11:00 HOUR | 54.7 | 66.0 | 46.6 |
| 11:00-12:00 HOUR | 53.5 | 62.9 | 48.4 |
| 12:00-13:00 HOUR | 53.1 | 66.5 | 46.3 |
| 13:00-14:00 HOUR | 53.3 | 63.8 | 48.4 |
| 14:00-15:00 HOUR | 56.7 | 73.9 | 46.3 |
| 15:00-16:00 HOUR | 55.7 | 70.4 | 47.8 |
| 16:00-17:00 HOUR | 52.5 | 61.7 | 47.4 |
| 17:00-18:00 HOUR | 56.6 | 70.0 | 48.6 |
| 18:00-19:00 HOUR | 57.6 | 74.1 | 48.5 |
| 19:00-20:00 HOUR | 54.4 | 63.9 | 46.9 |
| 20:00-21:00 HOUR | 53.0 | 63.3 | 46.9 |
| 21:00-22:00 HOUR | 54.3 | 68.8 | 46.9 |
| 22:00-23:00 HOUR | 53.6 | 67.3 | 45.4 |
| 23:00-00:00 HOUR | 52.1 | 64.2 | 45.2 |
| 00:00-01:00 HOUR | 49.9 | 69.1 | 42.3 |
| 01:00-02:00 HOUR | 47.4 | 64.0 | 42.2 |
| 02:00-03:00 HOUR | 49.1 | 62.2 | 42.7 |
| 03:00-04:00 HOUR | 47.2 | 57.6 | 43.3 |
| 04:00-05:00 HOUR | 50.7 | 68.3 | 43.3 |
| 05:00-06:00 HOUR | 48.6 | 58.2 | 43.3 |
| 06:00-07:00 HOUR | 49.2 | 60.6 | 43.4 |
| L _{Aeq} 24 hours | | 53.5 | |

| TIME* | RESULT dB(A) | | |
|---------------------------|-------------------------|--------------------------|-------------------------|
| | BAN NHONG AUNG | | |
| | NOVEMBER 12-13, 2022 | | |
| | T22AW988-0006 | | |
| | L _{Aeq} 1 hour | L _{Amax} 1 hour | L _{A90} 1 hour |
| 07:00-08:00 HOUR | 51.2 | 66.9 | 45.1 |
| 08:00-09:00 HOUR | 50.6 | 63.3 | 45.5 |
| 09:00-10:00 HOUR | 52.8 | 65.6 | 46.9 |
| 10:00-11:00 HOUR | 51.1 | 62.8 | 45.4 |
| 11:00-12:00 HOUR | 52.1 | 67.6 | 46.0 |
| 12:00-13:00 HOUR | 51.0 | 63.5 | 45.5 |
| 13:00-14:00 HOUR | 50.5 | 67.2 | 45.5 |
| 14:00-15:00 HOUR | 50.6 | 63.6 | 46.3 |
| 15:00-16:00 HOUR | 50.5 | 62.6 | 45.0 |
| 16:00-17:00 HOUR | 53.2 | 66.0 | 45.4 |
| 17:00-18:00 HOUR | 54.3 | 69.8 | 45.9 |
| 18:00-19:00 HOUR | 54.5 | 74.5 | 45.5 |
| 19:00-20:00 HOUR | 50.1 | 62.2 | 44.8 |
| 20:00-21:00 HOUR | 50.1 | 63.2 | 45.1 |
| 21:00-22:00 HOUR | 52.7 | 68.0 | 45.1 |
| 22:00-23:00 HOUR | 50.1 | 66.0 | 44.6 |
| 23:00-00:00 HOUR | 56.3 | 73.0 | 45.5 |
| 00:00-01:00 HOUR | 51.0 | 64.0 | 44.9 |
| 01:00-02:00 HOUR | 49.6 | 63.9 | 44.7 |
| 02:00-03:00 HOUR | 51.5 | 67.0 | 45.0 |
| 03:00-04:00 HOUR | 50.4 | 64.8 | 44.9 |
| 04:00-05:00 HOUR | 51.6 | 65.0 | 46.5 |
| 05:00-06:00 HOUR | 52.9 | 69.1 | 46.0 |
| 06:00-07:00 HOUR | 51.9 | 64.3 | 45.8 |
| L _{Aeq} 24 hours | | 52.0 | |

(M) [REDACTED]
LABORATORY SUPERVISOR

NOVEMBER 22, 2022

คุณภาพน้ำทิ้ง และคุณภาพน้ำทะเล

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : JULY 6, 2022
SAMPLING TIME : 09:00 HOUR
SAMPLING METHOD ^c : GRAB
SAMPLING BY ^c : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS AMONRAT PUTTALEE ๓-145-๓-0009

RECEIVED DATE : JULY 7, 2022
ANALYTICAL DATE : JULY 7-18, 2022
REPORT NO. : 2022-U056009
WORK NO. : 2019-002022
ANALYSIS NO. : T22AN354-0001

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|---|-------------------------------------|-----------------|
| | | | LBW001 : INLET API T22AN354-0001 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.3 (25°C) | - |
| TEMPERATURE ^c | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 39 | - |
| BIOCHEMICAL OXYGEN DEMAND ^a | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | 172 | 2.0 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 302 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 35.9 | 5.0 |
| SULPHIDE ^c | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | 0.42 | 0.02 |
| TOTAL DISSOLVED SOLIDS ^c | mg/L | DRIED AT 180 °C (SM: 2540 C) | 6,040 | 25 |
| FAT, OIL AND GREASE ^a | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 34 | 3 |
| CYANIDE ^c | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500 -CN ⁻ C AND 4500-CN ⁻ E) | 0.023 | 0.005 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | GREY/TURBID GREY | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

RELEASE ORDER NO. : EV-06-07-002

.....
[REDACTED]
.....
LABORATORY SUPERVISOR
๓-145-๓-0004
JULY 19, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : AUGUST 3, 2022
SAMPLING TIME : 11:20 HOUR
SAMPLING METHOD^c : GRAB
SAMPLING BY^c : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS AMONRAT PUTTALEE ๓-145-๓-0009

RECEIVED DATE : AUGUST 3, 2022
ANALYTICAL DATE : AUGUST 3-9, 2022
REPORT NO. : 2022-U062958
WORK NO. : 2019-002022
ANALYSIS NO. : T22AP191-0001

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|--|-------------------------------------|-----------------|
| | | | LBW001 : INLET API T22AP191-0001 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.7 (25°C) | - |
| TEMPERATURE ^c | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 38 | - |
| BIOCHEMICAL OXYGEN DEMAND ^a | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | 158 | 2.0 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 256 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 60.1 | 5.0 |
| SULPHIDE ^c | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | 0.21 | 0.02 |
| TOTAL DISSOLVED SOLIDS ^b | mg/L | DRIED AT 180 °C (SM: 2540 C) | 4,205 | 25 |
| FAT, OIL AND GREASE ^a | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 26 | 3 |
| CYANIDE ^c | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | 0.025 | 0.005 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | GREY/TURBID GREY | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

RELEASE ORDER NO. : EV-03-08-002

.....
(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
๓-145-๓-0004
AUGUST 15, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : SEPTEMBER 12, 2022
SAMPLING TIME : 10:25 HOUR
SAMPLING METHOD ^c : GRAB
SAMPLING BY ^c : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS AMONRAT PUTTALAE ๓-145-๓-0009

RECEIVED DATE : SEPTEMBER 12, 2022
ANALYTICAL DATE : SEPTEMBER 12-19, 2022
REPORT NO. : 2022-U073436
WORK NO. : 2019-002022
ANALYSIS NO. : T22AS016-0001

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|---|-------------------------------------|-----------------|
| | | | LBW001 : INLET API T22AS016-0001 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 8.3 (25°C) | - |
| TEMPERATURE ^c | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 37 | - |
| BIOCHEMICAL OXYGEN DEMAND ^a | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | 260 | 2.0 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 496 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 175 | 5.0 |
| SULPHIDE ^c | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | 0.16 | 0.02 |
| TOTAL DISSOLVED SOLIDS ^b | mg/L | DRIED AT 180 °C (SM: 2540 C) | 2,027 | 25 |
| FAT, OIL AND GREASE ^a | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 38 | 3 |
| CYANIDE ^c | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500 -CN ⁻ C AND 4500-CN ⁻ E) | 0.083 | 0.005 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | GREY/TURBID GREY | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23RD EDITION, 2017.

RELEASE ORDER NO. : EV-12-09-003

...
[REDACTED]
LABORATORY SUPERVISOR
๓-145-๓-0004
SEPTEMBER 23, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : SEPTEMBER 12, 2022
SAMPLING TIME : 10:25 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 12, 2022
ANALYTICAL DATE : SEPTEMBER 12-15, 2022
REPORT NO. : 2022-U073437
WORK NO. : 2019-002022
ANALYSIS NO. : T22AS016-0002

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|------|---|-------------------------------------|-----------------|
| | | | LBW001 : INLET API T22AS016-0002 | |
| TOTAL SOLIDS | mg/L | TOTAL SOLIDS DRIED AT 103-105 °C (SM: 2540 B) | 2,555 | 25 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | GREY/TURBID GREY | |

RELEASE ORDER NO. : EV-12-09-003

.....
[REDACTED]
.....
(MR) THANADET WANSANOR
LABORATORY SUPERVISOR

SEPTEMBER 23, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : OCTOBER 5, 2022
SAMPLING TIME : 11:10 HOUR
SAMPLING METHOD ^c : GRAB
SAMPLING BY ^c : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS AMONRAT PUTTALEE ๓-145-๓-0009

RECEIVED DATE : OCTOBER 6, 2022
ANALYTICAL DATE : OCTOBER 6-12, 2022
REPORT NO. : 2022-U080468
WORK NO. : 2019-002022
ANALYSIS NO. : T22AT795-0001

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|---|-------------------------------------|-----------------|
| | | | LBW001 : INLET API T22AT795-0001 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.4 (25°C) | - |
| TEMPERATURE ^c | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 37 | - |
| BIOCHEMICAL OXYGEN DEMAND ^a | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | 316 | 2.0 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 342 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 108 | 5.0 |
| SULPHIDE ^c | mg/L | METHYLENE BLUE METHOD (SM: 4500-S ²⁻ D) | 0.27 | 0.02 |
| TOTAL DISSOLVED SOLIDS ^b | mg/L | DRIED AT 180 °C (SM: 2540 C) | 5,280 | 25 |
| FAT, OIL AND GREASE ^a | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 93 | 3 |
| CYANIDE ^c | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500 -CN ⁻ C AND 4500-CN ⁻ E) | 0.037 | 0.005 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | BROWN/TURBID BROWN | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

RELEASE ORDER NO. : EV-05-10-002

(MRS PITAPAT SUTTAMANOTWONG)
LABORATORY SUPERVISOR
๓-145-๓-0004
OCTOBER 19, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : NOVEMBER 2, 2022
SAMPLING TIME : 09:40 HOUR
SAMPLING METHOD ^c : GRAB
SAMPLING BY ^c : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS AMONRAT PUTTALEE ๓-145-๓-0009

RECEIVED DATE : NOVEMBER 2, 2022
ANALYTICAL DATE : NOVEMBER 2-8, 2022
REPORT NO. : 2022-U089083
WORK NO. : 2019-002022
ANALYSIS NO. : T22AV769-0001

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|---|-------------------------------------|-----------------|
| | | | LBW001 : INLET API T22AV769-0001 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 8.5 (25°C) | - |
| TEMPERATURE ^c | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 38 | - |
| BIOCHEMICAL OXYGEN DEMAND ^a | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | 344 | 2.0 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 566 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 272 | 5.0 |
| SULPHIDE ^c | mg/L | METHYLENE BLUE METHOD (SM: 4500-S ²⁻ D) | 0.20 | 0.02 |
| TOTAL DISSOLVED SOLIDS ^b | mg/L | DRIED AT 180 °C (SM: 2540 C) | 4,360 | 25 |
| FAT, OIL AND GREASE ^a | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 67 | 3 |
| CYANIDE ^c | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500 -CN ⁻ C AND 4500-CN ⁻ E) | 0.040 | 0.005 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | GREY/TURBID GREY | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

RELEASE ORDER NO. : EV-02-11-001



LABORATORY SUPERVISOR
๓-145-๓-0004
NOVEMBER 14, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : NOVEMBER 2, 2022
SAMPLING TIME : 09:40 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS NADNAPA KAMOLBOON ๓-145-๓-0066

RECEIVED DATE : NOVEMBER 2, 2022
ANALYTICAL DATE : NOVEMBER 2-7, 2022
REPORT NO. : 2022-U089084
WORK NO. : 2019-002022
ANALYSIS NO. : T22AV769-0002

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-----------------------|---------|---|-------------------------------------|-----------------|
| | | | LBW001 : INLET API T22AV769-0002 | |
| METALS | | | | |
| MERCURY | mg/L Hg | DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: 3112 B) | < 0.0005 | 0.0005 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | YELLOW/TURBID | |
| SEDIMENT | | | BROWN | |

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

RELEASE ORDER NO. : EV-02-11-001

(MR. BHOCHONK PANICHLEKUMPI)
LABORATORY SUPERVISOR
๓-145-๓-0020
NOVEMBER 14, 2022



ANALYSIS REPORT

| | | | |
|-------------------------------------|--|------------------------|-----------------------|
| PROJECT NAME | : ENVIRONMENTAL & SOCIOECONOMIC SURVEY | RECEIVED DATE | : DECEMBER 7, 2022 |
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | ANALYTICAL DATE | : DECEMBER 7-14, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | REPORT NO. | : 2022-U100603 |
| CONTACT INFORMATION | : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com | WORK NO. | : 2019-002022 |
| SAMPLING SOURCE | : - | ANALYSIS NO. | : T22AY432-0001 |
| SAMPLE TYPE | : WASTEWATER | | |
| SAMPLING DATE | : DECEMBER 7, 2022 | | |
| SAMPLING TIME | : 09:55 HOUR | | |
| SAMPLING METHOD ^c | : GRAB | | |
| SAMPLING BY ^c | : MR THANADET WANSANOR ๓-145-๓-0056 | | |
| ANALYZED BY | : MISS AMONRAT PUTTALEE ๓-145-๓-0009 | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|--|-------------------------------------|-----------------|
| | | | LBW001 : INLET API T22AY432-0001 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.4 (25°C) | - |
| TEMPERATURE ^c | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 36 | - |
| BIOCHEMICAL OXYGEN DEMAND ^a | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | 189 | 2.0 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 277 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 172 | 5.0 |
| SULPHIDE ^c | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | 0.75 | 0.02 |
| TOTAL DISSOLVED SOLIDS ^b | mg/L | DRIED AT 180 °C (SM: 2540 C) | 5,120 | 25 |
| FAT, OIL AND GREASE ^a | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 12 | 3 |
| CYANIDE ^c | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | 0.042 | 0.005 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | GREY/TURBID GREY | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

RELEASE ORDER NO. : EV-07-12-002



LABORATORY SUPERVISOR
๓-145-๓-0004
DECEMBER 20, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : DECEMBER 7, 2022
SAMPLING TIME : 09:55 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : DECEMBER 7, 2022
ANALYTICAL DATE : DECEMBER 7-9, 2022
REPORT NO. : 2022-U100604
WORK NO. : 2019-002022
ANALYSIS NO. : T22AY432-0002

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|------|---|-------------------------------------|-----------------|
| | | | LBW001 : INLET API T22AY432-0002 | |
| TOTAL SOLIDS | mg/L | TOTAL SOLIDS DRIED AT 103-105 °C (SM: 2540 B) | 5,850 | 25 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | GREY/TURBID GREY | |

RELEASE ORDER NO. : EV-07-12-002

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 20, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : NOVEMBER 2, 2022
SAMPLING TIME : 10:05 HOUR
SAMPLING METHOD ^c : GRAB
SAMPLING BY ^c : MR THANADET WANSANOR
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 2, 2022
ANALYTICAL DATE : NOVEMBER 2-8, 2022
REPORT NO. : 2022-U089087
WORK NO. : 2019-002022
ANALYSIS NO. : T22AV769-0005

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|---|--|-----------------|
| | | | LBW016 : CLARIFIER (SUPERNATANT) T22AV769-0005 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.3 (25°C) | - |
| BIOCHEMICAL OXYGEN DEMAND ^a | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | 11.8 | 2.0 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 48.0 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 130 | 5.0 |
| AMMONIA ^c | mg/L NH ₃ | KJELDAHL (SM: 4500-NH ₃ B AND 4500-NH ₃ C) AND CALCULATION METHOD | 40.0 | 1.8 |
| PHOSPHATE ^c | mg/L | VANADOMOLYBDOPHOSPHORIC ACID COLOURIMETRIC METHOD (SM: 4500-P C) | 1.22 | 0.03 |
| FAT, OIL AND GREASE ^a | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 8 | 3 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | YELLOW/TURBID BROWN | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

RELEASE ORDER NO. : EV-02-11-001

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

NOVEMBER 14, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : WASTEWATER
SAMPLING DATE : NOVEMBER 2, 2022
SAMPLING TIME : 10:25 HOUR
SAMPLING METHOD ^c : GRAB
SAMPLING BY ^c : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS AMONRAT PUTTALEE ๓-145-๓-0009

RECEIVED DATE : NOVEMBER 2, 2022
ANALYTICAL DATE : NOVEMBER 2-8, 2022
REPORT NO. : 2022-U089088
WORK NO. : 2019-002022
ANALYSIS NO. : T22AV769-0006

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|------|---|--|-----------------|
| | | | LBW013 : SEDIMENTATION ZONE 2 T22AV769-0006 | |
| BIOCHEMICAL OXYGEN DEMAND ^a | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | 11.4 | 2.0 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 75.2 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 21.4 | 5.0 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | YELLOW/CLEAR GREEN | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

RELEASE ORDER NO. : EV-02-11-001



(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
๓-145-๓-0004
NOVEMBER 14, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : JULY 6, 2022
SAMPLING TIME : 09:20 HOUR
SAMPLING METHOD ° : GRAB
SAMPLING BY ° : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS AMONRAT PUTTALEE ๓-145-๓-0009

RECEIVED DATE : JULY 7, 2022
ANALYTICAL DATE : JULY 7-18, 2022
REPORT NO. : 2022-U056013
WORK NO. : 2019-002022
ANALYSIS NO. : T22AN354-0005

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|--|-------------------------------------|-----------------|
| | | | LBW004 : OP OUTLET T22AN354-0005 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 8.0 (25°C) | - |
| TEMPERATURE ° | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 32 | - |
| BIOCHEMICAL OXYGEN DEMAND ^a | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | 2.2 | 2.0 |
| CHEMICAL OXYGEN DEMAND ° | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 80.0 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 8.8 | 5.0 |
| SULPHIDE ° | mg/L | METHYLENE BLUE METHOD (SM: 4500-S ²⁻ D) | 0.02 | 0.02 |
| TOTAL DISSOLVED SOLIDS ° | mg/L | DRIED AT 180 °C (SM: 2540 C) | 37,225 | 25 |
| FAT, OIL AND GREASE ° | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.6 | 3 |
| CYANIDE ° | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | < 0.005 | 0.005 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | YELLOW/TURBID | |
| SEDIMENT | | | YELLOW | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-06-07-002

(MRS PITAPAT SUTTHAMONGTONG)
LABORATORY SUPERVISOR
๓-145-๓-0004
JULY 19, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : AUGUST 3, 2022
SAMPLING TIME : 11:05 HOUR
SAMPLING METHOD ° : GRAB
SAMPLING BY ° : MR THANADET WANSANOR จ-145-๑-0056
ANALYZED BY : MISS AMONRAT PUTTALEE จ-145-๑-0009

RECEIVED DATE : AUGUST 3, 2022
ANALYTICAL DATE : AUGUST 3-9, 2022
REPORT NO. : 2022-U062962
WORK NO. : 2019-002022
ANALYSIS NO. : T22AP191-0005

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|--|-------------------------------------|-----------------|
| | | | LBW004 : OP OUTLET T22AP191-0005 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.8 (25°C) | - |
| TEMPERATURE ° | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 33 | - |
| BIOCHEMICAL OXYGEN DEMAND ° | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | < 2.0 | 2.0 |
| CHEMICAL OXYGEN DEMAND ° | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 67.2 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 6.9 | 5.0 |
| SULPHIDE ° | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | < 0.02 | 0.02 |
| TOTAL DISSOLVED SOLIDS ° | mg/L | DRIED AT 180 °C (SM: 2540 C) | 26,840 | 25 |
| FAT, OIL AND GREASE ° | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.8 | 3 |
| CYANIDE ° | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | < 0.005 | 0.005 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | YELLOW/TURBID YELLOW | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-03-08-002

(MRS PITAPAT SUTTHAMONGTONG)
LABORATORY SUPERVISOR
จ-145-๑-0004
AUGUST 15, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : SEPTEMBER 12, 2022
SAMPLING TIME : 11:00 HOUR
SAMPLING METHOD ^c : GRAB
SAMPLING BY ^c : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS AMONRAT PUTTALEE ๓-145-๓-0009

RECEIVED DATE : SEPTEMBER 12, 2022
ANALYTICAL DATE : SEPTEMBER 12-19, 2022
REPORT NO. : 2022-U073458
WORK NO. : 2019-002022
ANALYSIS NO. : T22AS016-0006

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|--|-------------------------------------|-----------------|
| | | | LBW004 : OP OUTLET T22AS016-0006 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.7 (25°C) | - |
| TEMPERATURE ^c | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 30 | - |
| BIOCHEMICAL OXYGEN DEMAND ^c | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | < 2.0 | 2.0 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 65.6 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 10.1 | 5.0 |
| SULPHIDE ^c | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | < 0.02 | 0.02 |
| TOTAL DISSOLVED SOLIDS ^c | mg/L | DRIED AT 180 °C (SM: 2540 C) | 12,590 | 25 |
| FAT, OIL AND GREASE ^c | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 1.6 | 3 |
| CYANIDE ^c | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | < 0.005 | 0.005 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | YELLOW/CLEAR BROWN | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-12-09-003



LABORATORY SUPERVISOR
๓-145-๓-0004
SEPTEMBER 23, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : SEPTEMBER 12, 2022
SAMPLING TIME : 11:00 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 12, 2022
ANALYTICAL DATE : SEPTEMBER 12-15, 2022
REPORT NO. : 2022-U073459
WORK NO. : 2019-002022
ANALYSIS NO. : T22AS016-0007

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|------|---|-------------------------------------|-----------------|
| | | | LBW004 : OP OUTLET T22AS016-0007 | |
| TOTAL SOLIDS | mg/L | TOTAL SOLIDS DRIED AT 103-105 °C (SM: 2540 B) | 13,525 | 25 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | YELLOW/CLEAR BROWN | |

RELEASE ORDER NO. : EV-12-09-003

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

SEPTEMBER 23, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : OCTOBER 5, 2022
SAMPLING TIME : 09:40 HOUR
SAMPLING METHOD ° : GRAB
SAMPLING BY ° : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS AMONRAT PUTTALEE ๓-145-๓-0009

RECEIVED DATE : OCTOBER 6, 2022
ANALYTICAL DATE : OCTOBER 6-12, 2022
REPORT NO. : 2022-U080472
WORK NO. : 2019-002022
ANALYSIS NO. : T22AT795-0005

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|--|-------------------------------------|-----------------|
| | | | LBW004 : OP OUTLET T22AT795-0005 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.6 (25°C) | - |
| TEMPERATURE ° | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 30 | - |
| BIOCHEMICAL OXYGEN DEMAND ° | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | < 2.0 | 2.0 |
| CHEMICAL OXYGEN DEMAND ° | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 60.2 | 25.0 |
| TOTAL SUSPENDED SOLIDS ° | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | < 5.0 | 5.0 |
| SULPHIDE ° | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | < 0.02 | 0.02 |
| TOTAL DISSOLVED SOLIDS ° | mg/L | DRIED AT 180 °C (SM: 2540 C) | 26,040 | 25 |
| FAT, OIL AND GREASE ° | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.6 | 3 |
| CYANIDE ° | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | < 0.005 | 0.005 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | YELLOW/CLEAR BROWN | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-05-10-002



๓-145-๓-0004
OCTOBER 18, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : NOVEMBER 2, 2022
SAMPLING TIME : 10:10 HOUR
SAMPLING METHOD ^c : GRAB
SAMPLING BY ^c : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS KANNIKAR SUMLEETHA ๓-145-๓-0074

RECEIVED DATE : NOVEMBER 2, 2022
ANALYTICAL DATE : NOVEMBER 2-8, 2022
REPORT NO. : 2022-U089089
WORK NO. : 2019-002022
ANALYSIS NO. : T22AV769-0007

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|--|-------------------------------------|-----------------|
| | | | LBW004 : OP OUTLET T22AV769-0007 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.7 (25°C) | - |
| TEMPERATURE ^c | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 28 | - |
| BIOCHEMICAL OXYGEN DEMAND ^c | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | < 2.0 | 2.0 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 44.8 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^c | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | < 5.0 | 5.0 |
| SULPHIDE ^c | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | < 0.02 | 0.02 |
| TOTAL DISSOLVED SOLIDS ^c | mg/L | DRIED AT 180 °C (SM: 2540 C) | 35,340 | 25 |
| FAT, OIL AND GREASE ^c | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 1.2 | 3 |
| CYANIDE ^c | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | < 0.005 | 0.005 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | YELLOW/CLEAR YELLOW | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-02-11-001

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[Redacted Signature]
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LABORATORY SUPERVISOR
๓-145-๓-0004
NOVEMBER 10, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : NOVEMBER 2, 2022
SAMPLING TIME : 10:10 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR THANADET WANSANOR ๓-145-๓-0056
ANALYZED BY : MISS NADNAPA KAMOLBOON ๓-145-๓-0066

RECEIVED DATE : NOVEMBER 2, 2022
ANALYTICAL DATE : NOVEMBER 2-7, 2022
REPORT NO. : 2022-U089090
WORK NO. : 2019-002022
ANALYSIS NO. : T22AV769-0008

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-----------------------|---------|---|-------------------------------------|-----------------|
| | | | LBW004 : OP OUTLET T22AV769-0008 | |
| METALS | | | | |
| MERCURY | mg/L Hg | DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: 3112 B) | < 0.0005 | 0.0005 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | COLOURLESS/CLEAR | |
| SEDIMENT | | | YELLOW | |

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

RELEASE ORDER NO. : EV-02-11-001

(MR. BHOCHONK PANGKLENTONG)
LABORATORY SUPERVISOR
๓-145-๓-0020
NOVEMBER 14, 2022



ANALYSIS REPORT

| | | | |
|----------------------------|--|------------------------|-----------------------|
| PROJECT NAME | : ENVIRONMENTAL & SOCIOECONOMIC SURVEY | RECEIVED DATE | : DECEMBER 7, 2022 |
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | ANALYTICAL DATE | : DECEMBER 7-14, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | REPORT NO. | : 2022-U100608 |
| CONTACT INFORMATION | : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com | WORK NO. | : 2019-002022 |
| SAMPLING SOURCE | : - | ANALYSIS NO. | : T22AY432-0006 |
| SAMPLE TYPE | : EFFLUENT | | |
| SAMPLING DATE | : DECEMBER 7, 2022 | | |
| SAMPLING TIME | : 10:05 HOUR | | |
| SAMPLING METHOD ° | : GRAB | | |
| SAMPLING BY ° | : MR THANADET WANSANOR ๓-145-๓-0056 | | |
| ANALYZED BY | : MISS KANNIKAR SUMLEETHA ๓-145-๓-0074 | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|----------------------|---|-------------------------------------|-----------------|
| | | | LBW004 : OP OUTLET T22AY432-0006 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.7 (25°C) | - |
| TEMPERATURE ° | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 29 | - |
| BIOCHEMICAL OXYGEN DEMAND ° | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | ND | 2.0 |
| CHEMICAL OXYGEN DEMAND ° | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 77.6 | 25.0 |
| TOTAL SUSPENDED SOLIDS ° | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | ND | 5.0 |
| SULPHIDE ° | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | ND | 0.02 |
| TOTAL DISSOLVED SOLIDS ° | mg/L | DRIED AT 180 °C (SM: 2540 C) | 37,560 | 25 |
| FAT, OIL AND GREASE ° | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.6 | 3 |
| CYANIDE ° | mg/L CN ⁻ | DISTILLATION, COLOURIMETRIC METHOD (SM: 4500 -CN ⁻ C AND 4500-CN ⁻ E) | ND | 0.005 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | YELLOW/CLEAR BROWN | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-07-12-002



LABORATORY SUPERVISOR
๓-145-๓-0004
DECEMBER 23, 2022



ANALYSIS REPORT

| | | | |
|----------------------------|--|------------------------|----------------------|
| PROJECT NAME | : ENVIRONMENTAL & SOCIOECONOMIC SURVEY | | |
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | | |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | | |
| CONTACT INFORMATION | : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com | | |
| SAMPLING SOURCE | : - | | |
| SAMPLE TYPE | : EFFLUENT | RECEIVED DATE | : DECEMBER 7, 2022 |
| SAMPLING DATE | : DECEMBER 7, 2022 | ANALYTICAL DATE | : DECEMBER 7-9, 2022 |
| SAMPLING TIME | : 10:05 HOUR | REPORT NO. | : 2022-U100610 |
| SAMPLING METHOD | : GRAB | WORK NO. | : 2019-002022 |
| SAMPLING BY | : MR THANADET WANSANOR | ANALYSIS NO. | : T22AY432-0007 |
| ANALYZED BY | : MISS AMONRAT PUTTALEE | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|------|---|-------------------------------------|-----------------|
| | | | LBW004 : OP OUTLET T22AY432-0007 | |
| TOTAL SOLIDS | mg/L | TOTAL SOLIDS DRIED AT 103-105 °C (SM: 2540 B) | 38,843 | 25 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | YELLOW/CLEAR BROWN | |

RELEASE ORDER NO. : EV-07-12-002

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LABORATORY SUPERVISOR

DECEMBER 20, 2022



ANALYSIS REPORT

| | | | |
|----------------------------|--|------------------------|-------------------|
| PROJECT NAME | : ENVIRONMENTAL & SOCIOECONOMIC SURVEY | RECEIVED DATE | : JULY 7, 2022 |
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | ANALYTICAL DATE | : JULY 7-19, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | REPORT NO. | : 2022-U056014 |
| CONTACT INFORMATION | : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com | WORK NO. | : 2019-002022 |
| SAMPLING SOURCE | : - | ANALYSIS NO. | : T22AN354-0006 |
| SAMPLE TYPE | : EFFLUENT | | |
| SAMPLING DATE | : JULY 6, 2022 | | |
| SAMPLING TIME | : 10:10 HOUR | | |
| SAMPLING METHOD ° | : GRAB | | |
| SAMPLING BY ° | : MR THANADET WANSANOR | | |
| ANALYZED BY | : MISS AMONRAT PUTTALEE | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-------------------------------------|-----------------------------------|--|--|-----------------|
| | | | LBW005 : REFINERY MIX T22AN354-0006 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 8.1 (25°C) | - |
| TEMPERATURE ° | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 35 | - |
| BIOCHEMICAL OXYGEN DEMAND ° | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | < 2.0 | 2.0 |
| SALINITY ° | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 34.7 | 0.1 |
| CHEMICAL OXYGEN DEMAND ° | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 72.1 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 9.0 | 5.0 |
| NITRATE ° | mg/L NO ₃ ⁻ | CADMIUM REDUCTION METHOD (SM: 4500-NO ₃ ⁻ E) | 3.94 | 0.09 |
| SULPHIDE ° | mg/L | METHYLENE BLUE METHOD (SM: 4500-S ²⁻ D) | < 0.02 | 0.02 |
| TOTAL DISSOLVED SOLIDS ° | mg/L | DRIED AT 180 °C (SM: 2540 C) | 37,460 | 25 |
| FAT, OIL AND GREASE ° | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.8 | 3 |
| METALS | | | | |
| LEAD ° | mg/L Pb | DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B) | < 0.015 | 0.015 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | YELLOW/CLEAR | |
| SEDIMENT | | | YELLOW | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-06-07-002

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[REDACTED]
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LABORATORY SUPERVISOR

JULY 19, 2022



ANALYSIS REPORT

| | | | |
|-------------------------------------|--|------------------------|---------------------|
| PROJECT NAME | : ENVIRONMENTAL & SOCIOECONOMIC SURVEY | RECEIVED DATE | : AUGUST 3, 2022 |
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | ANALYTICAL DATE | : AUGUST 3-10, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | REPORT NO. | : 2022-U062963 |
| CONTACT INFORMATION | : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com | WORK NO. | : 2019-002022 |
| SAMPLING SOURCE | : - | ANALYSIS NO. | : T22AP191-0006 |
| SAMPLE TYPE | : EFFLUENT | | |
| SAMPLING DATE | : AUGUST 3, 2022 | | |
| SAMPLING TIME | : 10:50 HOUR | | |
| SAMPLING METHOD ^c | : GRAB | | |
| SAMPLING BY ^c | : MR THANADET WANSANOR | | |
| ANALYZED BY | : MISS AMONRAT PUTTALEE | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|-----------------------------------|--|--|-----------------|
| | | | LBW005 : REFINERY MIX T22AP191-0006 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.9 (25°C) | - |
| TEMPERATURE ^c | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 30 | - |
| BIOCHEMICAL OXYGEN DEMAND ^c | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | < 2.0 | 2.0 |
| SALINITY ^c | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 26.1 | 0.1 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 52.8 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 11.1 | 5.0 |
| NITRATE ^c | mg/L NO ₃ ⁻ | CADMIUM REDUCTION METHOD (SM: 4500-NO ₃ ⁻ E) | 3.15 | 0.09 |
| SULPHIDE ^c | mg/L | METHYLENE BLUE METHOD (SM: 4500-S ²⁻ D) | < 0.02 | 0.02 |
| TOTAL DISSOLVED SOLIDS ^c | mg/L | DRIED AT 180 °C (SM: 2540 C) | 29,820 | 25 |
| FAT, OIL AND GREASE ^c | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.7 | 3 |
| METALS | | | | |
| LEAD ^c | mg/L Pb | DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B) | < 0.015 | 0.015 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | YELLOW/TURBID | |
| SEDIMENT | | | BROWN | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-03-08-002

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

AUGUST 15, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : SEPTEMBER 12, 2022
SAMPLING TIME : 09:55 HOUR
SAMPLING METHOD ^c : GRAB
SAMPLING BY ^c : MR THANADET WANSANOR
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : SEPTEMBER 12, 2022
ANALYTICAL DATE : SEPTEMBER 12-19, 2022
REPORT NO. : 2022-U073460
WORK NO. : 2019-002022
ANALYSIS NO. : T22AS016-0008

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|-----------------------------------|--|--|-----------------|
| | | | LBW005 : REFINERY MIX T22AS016-0008 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.7 (25°C) | - |
| TEMPERATURE ^c | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 30 | - |
| BIOCHEMICAL OXYGEN DEMAND ^a | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | 2.2 | 2.0 |
| SALINITY ^c | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 13.3 | 0.1 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 41.6 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 11.0 | 5.0 |
| NITRATE ^c | mg/L NO ₃ ⁻ | CADMIUM REDUCTION METHOD (SM: 4500-NO ₃ ⁻ E) | 1.42 | 0.09 |
| SULPHIDE ^c | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | < 0.02 | 0.02 |
| TOTAL DISSOLVED SOLIDS ^c | mg/L | DRIED AT 180 °C (SM: 2540 C) | 15,080 | 25 |
| FAT, OIL AND GREASE ^c | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.6 | 3 |
| METALS | | | | |
| LEAD ^c | mg/L Pb | DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B) | < 0.015 | 0.015 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | YELLOW/CLEAR | |
| SEDIMENT | | | BROWN | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-12-09-003

.....
(THAI INDUSTRIAL STANDARDS INSTITUTE (TISI))
LABORATORY SUPERVISOR
SEPTEMBER 23, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
MEASURING DATE : SEPTEMBER 12, 2022
MEASURING TIME : 09:55 HOUR
SAMPLING METHOD : GRAB
MEASURED BY : MR THANADET WANSANOR

RECEIVED DATE : -
ANALYTICAL DATE : -
REPORT NO. : 2022-U073461
WORK NO. : 2019-002022
ANALYSIS NO. : T22AS016-0009

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|------|--|--|-----------------|
| | | | LBW005 : REFINERY MIX T22AS016-0009 | |
| DISSOLVED OXYGEN | mg/L | MEMBRANE ELECTRODE METHOD AT SITE (SM: 4500-O G) | 4.1 | 0.5 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | YELLOW/CLEAR BROWN | |

RELEASE ORDER NO. : EV-12-09-003

.....
(MR THEERAWAT CHOMMING)
LABORATORY SUPERVISOR

SEPTEMBER 26, 2022



ANALYSIS REPORT

| | | | |
|----------------------------|--|------------------------|----------------------|
| PROJECT NAME | : ENVIRONMENTAL & SOCIOECONOMIC SURVEY | | |
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | | |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | | |
| CONTACT INFORMATION | : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com | | |
| SAMPLING SOURCE | : - | | |
| SAMPLE TYPE | : EFFLUENT | RECEIVED DATE | : OCTOBER 6, 2022 |
| SAMPLING DATE | : OCTOBER 5, 2022 | ANALYTICAL DATE | : OCTOBER 6-17, 2022 |
| SAMPLING TIME | : 09:15 HOUR | REPORT NO. | : 2022-U080473 |
| SAMPLING METHOD ° | : GRAB | WORK NO. | : 2019-002022 |
| SAMPLING BY ° | : MR THANADET WANSANOR | ANALYSIS NO. | : T22AT795-0006 |
| ANALYZED BY | : MISS AMONRAT PUTTALEE | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-------------------------------------|-----------------------------------|---|--|-----------------|
| | | | LBW005 : REFINERY MIX T22AT795-0006 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.7 (25°C) | - |
| TEMPERATURE ° | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 33 | - |
| BIOCHEMICAL OXYGEN DEMAND ° | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | < 2.0 | 2.0 |
| SALINITY ° | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 25.2 | 0.1 |
| CHEMICAL OXYGEN DEMAND ° | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 68.1 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^a | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | 8.0 | 5.0 |
| NITRATE ° | mg/L NO ₃ ⁻ | CADMIUM REDUCTION METHOD (SM: 4500-NO ₃ ⁻ E) | 1.86 | 0.09 |
| SULPHIDE ° | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | < 0.02 | 0.02 |
| TOTAL DISSOLVED SOLIDS ° | mg/L | DRIED AT 180 °C (SM: 2540 C) | 27,960 | 25 |
| FAT, OIL AND GREASE ° | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.6 | 3 |



| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-----------------------|---------|---|--|-----------------|
| | | | LBW005 : REFINERY MIX T22AT795-0006 | |
| METALS | | | | |
| LEAD ° | mg/L Pb | DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B) | < 0.015 | 0.015 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | YELLOW/CLEAR | |
| SEDIMENT | | | BROWN | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-05-10-002

(MRS. TITIPAT SUTTHANONGWONG)
LABORATORY SUPERVISOR

OCTOBER 18, 2022

ANALYSIS REPORT

| | | | |
|-------------------------------------|--|------------------------|----------------------|
| PROJECT NAME | : ENVIRONMENTAL & SOCIOECONOMIC SURVEY | | |
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | | |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | | |
| CONTACT INFORMATION | : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com | | |
| SAMPLING SOURCE | : - | | |
| SAMPLE TYPE | : EFFLUENT | RECEIVED DATE | : NOVEMBER 2, 2022 |
| SAMPLING DATE | : NOVEMBER 2, 2022 | ANALYTICAL DATE | : NOVEMBER 2-8, 2022 |
| SAMPLING TIME | : 10:30 HOUR | REPORT NO. | : 2022-U089091 |
| SAMPLING METHOD ^c | : GRAB | WORK NO. | : 2019-002022 |
| SAMPLING BY ^c | : MR THANADET WANSANOR | ANALYSIS NO. | : T22AV769-0009 |
| ANALYZED BY | : MISS AMONRAT PUTTALEE | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|-----------------------------------|--|--|-----------------|
| | | | LBW005 : REFINERY MIX T22AV769-0009 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.9 (25°C) | - |
| TEMPERATURE ^c | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 32 | - |
| BIOCHEMICAL OXYGEN DEMAND ^c | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | 2.8 | 2.0 |
| SALINITY ^c | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 33.0 | 0.1 |
| CHEMICAL OXYGEN DEMAND ^c | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 56.0 | 25.0 |
| TOTAL SUSPENDED SOLIDS ^c | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | < 5.0 | 5.0 |
| NITRATE ^c | mg/L NO ₃ ⁻ | CADMIUM REDUCTION METHOD (SM: 4500-NO ₃ ⁻ E) | 1.33 | 0.09 |
| SULPHIDE ^c | mg/L | METHYLENE BLUE METHOD(SM: 4500-S ²⁻ D) | < 0.02 | 0.02 |
| TOTAL DISSOLVED SOLIDS ^c | mg/L | DRIED AT 180 °C (SM: 2540 C) | 37,240 | 25 |
| FAT, OIL AND GREASE ^c | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.7 | 3 |
| METALS | | | | |
| LEAD ^c | mg/L Pb | DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B) | < 0.015 | 0.015 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | YELLOW/CLEAR | |
| SEDIMENT | | | YELLOW | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-02-11-001

(MRS PITAPAT SUTTHAMONGWONG)
LABORATORY SUPERVISOR

NOVEMBER 10, 2022



ANALYSIS REPORT

| | | | |
|----------------------------|--|------------------------|-----------------------|
| PROJECT NAME | : ENVIRONMENTAL & SOCIOECONOMIC SURVEY | RECEIVED DATE | : DECEMBER 7, 2022 |
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | ANALYTICAL DATE | : DECEMBER 7-16, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | REPORT NO. | : 2022-U100612 |
| CONTACT INFORMATION | : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com | WORK NO. | : 2019-002022 |
| SAMPLING SOURCE | : - | ANALYSIS NO. | : T22AY432-0008 |
| SAMPLE TYPE | : EFFLUENT | | |
| SAMPLING DATE | : DECEMBER 7, 2022 | | |
| SAMPLING TIME | : 10:25 HOUR | | |
| SAMPLING METHOD ° | : GRAB | | |
| SAMPLING BY ° | : MR THANADET WANSANOR | | |
| ANALYZED BY | : MISS AMONRAT PUTTALEE | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-----------------------------|-----------------------------------|--|--|-----------------|
| | | | LBW005 : REFINERY MIX T22AY432-0008 | |
| pH ^a | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.7 (25°C) | - |
| TEMPERATURE ° | °C | LABORATORY AND FIELD METHODS (SM: 2550 B) | 33 | - |
| BIOCHEMICAL OXYGEN DEMAND ° | mg/L | 5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: 5210 B AND 4500-O G) | < 2.0 | 2.0 |
| SALINITY ° | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 34.2 | 0.1 |
| CHEMICAL OXYGEN DEMAND ° | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 76.0 | 25.0 |
| TOTAL SUSPENDED SOLIDS ° | mg/L | DRIED AT 103-105 °C (SM: 2540 D) | < 5.0 | 5.0 |
| NITRATE ° | mg/L NO ₃ ⁻ | CADMIUM REDUCTION METHOD (SM: 4500-NO ₃ ⁻ E) | 0.66 | 0.09 |
| SULPHIDE ° | mg/L | METHYLENE BLUE METHOD (SM: 4500-S ₂ ⁻ D) | < 0.02 | 0.02 |
| TOTAL DISSOLVED SOLIDS ° | mg/L | DRIED AT 180 °C (SM: 2540 C) | 38,180 | 25 |
| FAT, OIL AND GREASE ° | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.7 | 3 |
| METALS | | | | |
| LEAD ° | mg/L Pb | DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: 3030 E AND 3111 B) | < 0.015 | 0.015 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | YELLOW/CLEAR | |
| SEDIMENT | | | BROWN | |

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-07-12-002

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

DECEMBER 20, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT **RECEIVED DATE** : -
MEASURING DATE : DECEMBER 7, 2022 **ANALYTICAL DATE** : -
MEASURING TIME : 10:25 HOUR **REPORT NO.** : 2022-U100614
SAMPLING METHOD : GRAB **WORK NO.** : 2019-002022
MEASURED BY : MR THANADET WANSANOR **ANALYSIS NO.** : T22AY432-0009

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|--|------|--|--|-----------------|
| | | | LBW005 : REFINERY MIX T22AY432-0009 | |
| DISSOLVED OXYGEN | mg/L | MEMBRANE ELECTRODE METHOD AT SITE (SM: 4500-O G) | 5.9 | 0.5 |
| SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT | | | YELLOW/CLEAR BROWN | |

RELEASE ORDER NO. : EV-07-12-002

[REDACTED SIGNATURE]

LABORATORY SUPERVISOR

DECEMBER 20, 2022



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : SEAWATER
SAMPLING DATE : JULY 6, 2022
SAMPLING TIME : 10:30 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : JULY 7, 2022
ANALYTICAL DATE : JULY 7-25, 2022
REPORT NO. : 2022-U058385
WORK NO. : 2019-002022
ANALYSIS NO. : T22AN353-0001

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|---------------------------|----------------------|---|--|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AN353-0001 | |
| pH | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 8.0 (25°C) | - |
| PHENOLS | mg/L | DISTILLATION, 4-AMINOANTIPYRINE METHOD (SM: 5530 B AND 5530 C) | < 0.005 | 0.005 |
| TEMPERATURE | °C | THERMOMETER AT SITE (SM: 2550 B) | 32 | - |
| SALINITY | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 30.9 | 0.1 |
| DISSOLVED OXYGEN | mg/L | MEMBRANE ELECTRODE METHOD AT SITE (SM: 4500-O G) | 4.7 | 0.5 |
| BIOCHEMICAL OXYGEN DEMAND | mg/L | MEMBRANE ELECTRODE METHOD (SM: 4500-O G AND 5210 B) | 1.6 | 0.5 |
| CHEMICAL OXYGEN DEMAND | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 62.7 | 25.0 |
| SUSPENDED SOLIDS | mg/L | GRAVIMETRIC METHOD (SM: 2540 D) | 7.1 | 1.0 |
| TOTAL DISSOLVED SOLIDS | mg/L | TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C) | 34,288 | 25 |
| CYANIDE | µg/L CN ⁻ | DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | < 5 | 5 |
| NITRATE-NITROGEN | µg/L N | CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II.6)) | 9.40 | 0.50 |
| SULPHIDE | µg/L | METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5) | < 10 | 10 |
| FAT, OIL AND GREASE | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.4 | 3 |



| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-----------------------|---------|---|---|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AN353-0001 | |
| METALS | | | | |
| LEAD | µg/L Pb | PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12) | < 0.100 | 0.100 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | COLOURLESS/CLEAR | |
| SEDIMENT | | | YELLOW | |

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-06-07-002

(MRS. [REDACTED])
LABORATORY SUPERVISOR

JULY 26, 2022

ANALYSIS REPORT

| | | | |
|----------------------------|--|------------------------|---------------------|
| PROJECT NAME | : ENVIRONMENTAL & SOCIOECONOMIC SURVEY | | |
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | | |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | | |
| CONTACT INFORMATION | : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com | | |
| SAMPLING SOURCE | : - | | |
| SAMPLE TYPE | : SEAWATER | RECEIVED DATE | : AUGUST 3, 2022 |
| SAMPLING DATE | : AUGUST 3, 2022 | ANALYTICAL DATE | : AUGUST 3-19, 2022 |
| SAMPLING TIME | : 10:29 HOUR | REPORT NO. | : 2022-U064770 |
| SAMPLING METHOD | : COMPOSITE | WORK NO. | : 2019-002022 |
| SAMPLING BY | : MR THANADET WANSANOR | ANALYSIS NO. | : T22AP190-0001 |
| ANALYZED BY | : MISS AMONRAT PUTTALEE | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|---------------------------|---------|---|--|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AP190-0001 | |
| pH | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.8 (25°C) | - |
| PHENOLS | mg/L | DISTILLATION, 4-AMINOANTIPYRINE METHOD (SM: 5530 B AND 5530 C) | 0.009 | 0.005 |
| TEMPERATURE | °C | THERMOMETER AT SITE (SM: 2550 B) | 31 | - |
| SALINITY | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 30.6 | 0.1 |
| DISSOLVED OXYGEN | mg/L | MEMBRANE ELECTRODE METHOD AT SITE (SM: 4500-O G) | 5.1 | 0.5 |
| BIOCHEMICAL OXYGEN DEMAND | mg/L | MEMBRANE ELECTRODE METHOD (SM: 4500-O G AND 5210 B) | 1.5 | 0.5 |
| CHEMICAL OXYGEN DEMAND | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 59.2 | 25.0 |
| SUSPENDED SOLIDS | mg/L | GRAVIMETRIC METHOD (SM: 2540 D) | 24.6 | 1.0 |
| TOTAL DISSOLVED SOLIDS | mg/L | TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C) | 34,475 | 25 |
| CYANIDE | µg/L CN | DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: 4500-CN C AND 4500-CN E) | < 5 | 5 |
| NITRATE-NITROGEN | µg/L N | CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II.6)) | 21.0 | 0.50 |
| SULPHIDE | µg/L | METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5) | < 10 | 10 |
| FAT, OIL AND GREASE | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.3 | 3 |



| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-----------------------|---------|---|--|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AP190-0001 | |
| METALS | | | | |
| LEAD | µg/L Pb | PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12) | 0.670 | 0.100 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | COLOURLESS/CLEAR | |
| SEDIMENT | | | YELLOW | |

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-03-08-002

.....
(Signature)
LABORATORY SUPERVISOR

AUGUST 22, 2022

ANALYSIS REPORT

| | | | |
|----------------------------|--|------------------------|-------------------------|
| PROJECT NAME | : ENVIRONMENTAL & SOCIOECONOMIC SURVEY | | |
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | | |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | | |
| CONTACT INFORMATION | : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com | | |
| SAMPLING SOURCE | : - | | |
| SAMPLE TYPE | : SEAWATER | RECEIVED DATE | : SEPTEMBER 12, 2022 |
| SAMPLING DATE | : SEPTEMBER 12, 2022 | ANALYTICAL DATE | : SEPTEMBER 12-23, 2022 |
| SAMPLING TIME | : 12:15 HOUR | REPORT NO. | : 2022-U074758 |
| SAMPLING METHOD | : COMPOSITE | WORK NO. | : 2019-002022 |
| SAMPLING BY | : MR THANADET WANSANOR | ANALYSIS NO. | : T22AS017-0001 |
| ANALYZED BY | : MISS AMONRAT PUTTALEE | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|---------------------------|----------------------|---|--|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AS017-0001 | |
| pH | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 8.2 (25°C) | - |
| PHENOLS | mg/L | DISTILLATION, 4-AMINOANTIPYRINE METHOD (SM: 5530 B AND 5530 C) | < 0.005 | 0.005 |
| TEMPERATURE | °C | THERMOMETER AT SITE (SM: 2550 B) | 31 | - |
| SALINITY | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 16.8 | 0.1 |
| DISSOLVED OXYGEN | mg/L | MEMBRANE ELECTRODE METHOD AT SITE (SM: 4500-O G) | 4.7 | 0.5 |
| BIOCHEMICAL OXYGEN DEMAND | mg/L | MEMBRANE ELECTRODE METHOD (SM: 4500-O G AND 5210 B) | 1.6 | 0.5 |
| CHEMICAL OXYGEN DEMAND | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 59.2 | 25.0 |
| SUSPENDED SOLIDS | mg/L | GRAVIMETRIC METHOD (SM: 2540 D) | 14.9 | 1.0 |
| TOTAL DISSOLVED SOLIDS | mg/L | TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C) | 19,000 | 25 |
| CYANIDE | µg/L CN ⁻ | DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | < 5 | 5 |
| NITRATE-NITROGEN | µg/L N | CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II.6)) | 17.8 | 0.50 |
| SULPHIDE | µg/L | METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5) | < 10 | 10 |
| FAT, OIL AND GREASE | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.8 | 3 |



| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-----------------------|---------|---|---|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AS017-0001 | |
| METALS | | | | |
| LEAD | µg/L Pb | PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12) | 0.330 | 0.100 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | YELLOW/CLEAR | |
| SEDIMENT | | | BROWN | |

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-12-09-003

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([REDACTED SIGNATURE])
LABORATORY SUPERVISOR
SEPTEMBER 26, 2022

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : SEAWATER
SAMPLING DATE : OCTOBER 5, 2022
SAMPLING TIME : 10:00 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS KANNIKAR SUMLEETHA

RECEIVED DATE : OCTOBER 6, 2022
ANALYTICAL DATE : OCTOBER 6-18, 2022
REPORT NO. : 2022-U082074
WORK NO. : 2019-002022
ANALYSIS NO. : T22AT794-0001

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|---------------------------|----------------------|---|--|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AT794-0001 | |
| pH | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.8 (25°C) | - |
| PHENOLS | mg/L | DISTILLATION, 4-AMINOANTIPYRINE METHOD (SM: 5530 B AND 5530 C) | < 0.005 | 0.005 |
| TEMPERATURE | °C | THERMOMETER AT SITE (SM: 2550 B) | 29 | - |
| SALINITY | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 27.7 | 0.1 |
| DISSOLVED OXYGEN | mg/L | MEMBRANE ELECTRODE METHOD AT SITE (SM: 4500-O G) | 4.5 | 0.5 |
| BIOCHEMICAL OXYGEN DEMAND | mg/L | MEMBRANE ELECTRODE METHOD (SM: 4500-O G AND 5210 B) | 1.3 | 0.5 |
| CHEMICAL OXYGEN DEMAND | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 52.3 | 25.0 |
| SUSPENDED SOLIDS | mg/L | GRAVIMETRIC METHOD (SM: 2540 D) | 6.3 | 1.0 |
| TOTAL DISSOLVED SOLIDS | mg/L | TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C) | 31,060 | 25 |
| CYANIDE | µg/L CN ⁻ | DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | < 5 | 5 |
| NITRATE-NITROGEN | µg/L N | CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II.6)) | 35.6 | 0.50 |
| SULPHIDE | µg/L | METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5) | < 10 | 10 |
| FAT, OIL AND GREASE | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.6 | 3 |



| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-----------------------|---------|---|---|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AT794-0001 | |
| METALS | | | | |
| LEAD | µg/L Pb | PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12) | 0.460 | 0.100 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | COLOURLESS/CLEAR | |
| SEDIMENT | | | YELLOW | |

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-05-10-002

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

OCTOBER 20, 2022

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : SEAWATER
SAMPLING DATE : NOVEMBER 2, 2022
SAMPLING TIME : 10:45 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : NOVEMBER 2, 2022
ANALYTICAL DATE : NOVEMBER 2-11, 2022
REPORT NO. : 2022-U090812
WORK NO. : 2019-002022
ANALYSIS NO. : T22AV775-0001

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|---------------------------|----------------------|---|--|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AV775-0001 | |
| pH | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.8 (25°C) | - |
| PHENOLS | mg/L | DISTILLATION, 4-AMINOANTIPYRINE METHOD (SM: 5530 B AND 5530 C) | < 0.005 | 0.005 |
| TEMPERATURE | °C | THERMOMETER AT SITE (SM: 2550 B) | 29 | - |
| SALINITY | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 31.8 | 0.1 |
| DISSOLVED OXYGEN | mg/L | MEMBRANE ELECTRODE METHOD AT SITE (SM: 4500-O G) | 5.6 | 0.5 |
| BIOCHEMICAL OXYGEN DEMAND | mg/L | MEMBRANE ELECTRODE METHOD (SM: 4500-O G AND 5210 B) | 1.1 | 0.5 |
| CHEMICAL OXYGEN DEMAND | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 35.2 | 25.0 |
| SUSPENDED SOLIDS | mg/L | GRAVIMETRIC METHOD (SM: 2540 D) | 5.0 | 1.0 |
| TOTAL DISSOLVED SOLIDS | mg/L | TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C) | 33,930 | 25 |
| CYANIDE | µg/L CN ⁻ | DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | < 5 | 5 |
| NITRATE-NITROGEN | µg/L N | CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II.6)) | 15.1 | 0.50 |
| SULPHIDE | µg/L | METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5) | < 10 | 10 |
| FAT, OIL AND GREASE | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.8 | 3 |



| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-----------------------|---------|---|--|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AV775-0001 | |
| METALS | | | | |
| LEAD | µg/L Pb | PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12) | 0.520 | 0.100 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | COLOURLESS/CLEAR | |
| SEDIMENT | | | YELLOW | |

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-02-11-001

(MRS PIYAPAT SUTTAMANOTWONG)
LABORATORY SUPERVISOR

NOVEMBER 17, 2022

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : ESSO (THAILAND) PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com
SAMPLING SOURCE : -
SAMPLE TYPE : SEAWATER
SAMPLING DATE : NOVEMBER 2, 2022
SAMPLING TIME : 10:45 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY : MR THANADET WANSANOR
ANALYZED BY : MR KORNVIT CHIASIRISAKUL

RECEIVED DATE : NOVEMBER 2, 2022
ANALYTICAL DATE : NOVEMBER 2-7, 2022
REPORT NO. : 2022-U090813
WORK NO. : 2019-002022
ANALYSIS NO. : T22AV775-0002

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-----------------------|---------|--|--|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AV775-0002 | |
| METALS | | | | |
| MERCURY | µg/L Hg | COLD-VAPOUR ATOMIC FLUORESCENCE SPECTROMETRIC METHOD (US EPA 2005: 245.7) | < 0.020 | 0.020 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | COLOURLESS/CLEAR | |
| SEDIMENT | | | - | |

RELEASE ORDER NO. : EV-02-11-001

(M) [REDACTED]
LABORATORY SUPERVISOR

NOVEMBER 17, 2022



ANALYSIS REPORT

| | | | |
|----------------------------|--|------------------------|-----------------------|
| PROJECT NAME | : ENVIRONMENTAL & SOCIOECONOMIC SURVEY | RECEIVED DATE | : DECEMBER 7, 2022 |
| CUSTOMER NAME | : ESSO (THAILAND) PUBLIC COMPANY LIMITED | ANALYTICAL DATE | : DECEMBER 7-21, 2022 |
| ADDRESS | : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230 | REPORT NO. | : 2022-U100773 |
| CONTACT INFORMATION | : TEL : 0 3314 2891 e-mail : wanlop.boongor@exxonmobil.com | WORK NO. | : 2019-002022 |
| SAMPLING SOURCE | : - | ANALYSIS NO. | : T22AY429-0001 |
| SAMPLE TYPE | : SEAWATER | | |
| SAMPLING DATE | : DECEMBER 7, 2022 | | |
| SAMPLING TIME | : 10:38 HOUR | | |
| SAMPLING METHOD | : COMPOSITE | | |
| SAMPLING BY | : MR THANADET WANSANOR | | |
| ANALYZED BY | : MISS AMONRAT PUTTALEE | | |

| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|---------------------------|----------------------|---|--|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AY429-0001 | |
| pH | - | ELECTROMETRIC METHOD (SM: 4500-H ⁺ B) | 7.8 (25°C) | - |
| PHENOLS | mg/L | DISTILLATION, 4-AMINOANTIPYRINE METHOD (SM: 5530 B AND 5530 C) | 0.006 | 0.005 |
| TEMPERATURE | °C | THERMOMETER AT SITE (SM: 2550 B) | 29 | - |
| SALINITY | ppt | ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM: 2520 B) | 29.0 | 0.1 |
| DISSOLVED OXYGEN | mg/L | MEMBRANE ELECTRODE METHOD AT SITE (SM: 4500-O G) | 5.6 | 0.5 |
| BIOCHEMICAL OXYGEN DEMAND | mg/L | MEMBRANE ELECTRODE METHOD (SM: 4500-O G AND 5210 B) | 1.3 | 0.5 |
| CHEMICAL OXYGEN DEMAND | mg/L | CLOSED REFLUX, TITRIMETRIC METHOD (SM: 5220 C) | 77.6 | 25.0 |
| SUSPENDED SOLIDS | mg/L | GRAVIMETRIC METHOD (SM: 2540 D) | 8.1 | 1.0 |
| TOTAL DISSOLVED SOLIDS | mg/L | TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C) | 37,100 | 25 |
| CYANIDE | µg/L CN ⁻ | DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: 4500-CN ⁻ C AND 4500-CN ⁻ E) | < 5 | 5 |
| NITRATE-NITROGEN | µg/L N | CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II.6)) | 28.4 | 0.50 |
| SULPHIDE | µg/L | METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5) | < 10 | 10 |
| FAT, OIL AND GREASE | mg/L | LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B) | 0.6 | 3 |



| PARAMETER | UNIT | METHOD OF ANALYSIS | RESULT | DETECTION LIMIT |
|-----------------------|---------|---|--|-----------------|
| | | | LBW006. 500 M OFFSHORE (JETTY) T22AY429-0001 | |
| METALS | | | | |
| LEAD | µg/L Pb | PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12) | 0.890 | 0.100 |
| SAMPLE CONDITION | | | | |
| WATER'S COLOUR/TURBID | | | COLOURLESS/CLEAR | |
| SEDIMENT | | | YELLOW | |

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-07-12-002

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[REDACTED]
.....
LABORATORY SUPERVISOR (NG)

DECEMBER 23, 2022

เบนซีน และไฮโดรคาร์บอนรวม



Your Project #: SRT-RF-2022-12

Attention: Tanaphorn Taweeyat

ESSO SRIRACHA REFINERY
118, Moo 2, Sukhapiban 7 Rd
Sriracha, Chonburi
Thailand 20230

Report Date: 01/09/2023

Report #: R7459065

Version: 1 - Final

ANALYTICAL REPORT

BV LABS JOB #: C2AU770

Received: 12/30/2022, 00:00

Sample Matrix: Passive Monitor
Samples Received: 5

| Analyses | Quantity | Date Analyzed | Laboratory Method | Analytical Method |
|--|----------|---------------|-------------------|-------------------|
| Naphthas by NIOSH 1550 - Monitor | 5 | 01/04/2023 | NOV4SOP-00001 | NIOSH 1550 / 1551 |
| Volatiles (VOC) - List 1 -GC/FID-Monitor | 5 | 01/04/2023 | NOV SOP-00005 | NOV SOP-00005 |

This report shall not be reproduced except in full, without the written approval of the laboratory.

Results relate only to the items tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

Encryption Key

Please direct all questions regarding this Analytical Report to your Project Manager.

Wendy Lesniak, CS

Email: Wendy.Lesniak@bureauveritas.com

Phone# (248) 344-1770

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
This report is authorized by Jason Forbes, General Manager responsible for Michigan Industrial Hygiene laboratory operations.

BUREAU
VERITAS

BV Labs Job #: C2AU770

Report Date: 01/09/2023

ESSO SRIRACHA REFINERY

Client Project #: SRT-RF-2022-12

ANALYTICAL RESULTS

| Client ID: SRT-RF-2022-12-005 | | | | | Matrix: Passive Monitor | | | |
|----------------------------------|---------------------|------------|----------------------------|--------|--|-------------------|------------------|----------|
| BV Labs ID: URY004 | | | | | Sample Media: AT 566/3M3500+Monitor Charcoal | | | |
| Date Sampled: 12/26/2022 | | | | | Sampling Time (Minutes): 480 | | | |
| ANALYTE | Samp Rate cc/min | Mass ug | Concentration mg/m3 ppm | | RL ug | Test Method | Date Analyzed | QC Batch |
| Benzene | 9.7 | <0.50 | <0.11 | <0.034 | 0.50 | NOV SOP-00005 | 01/04/2023 | 8431947 |
| THCs as n-Hexane | 9.9 | <30 | <6.3 | <1.8 | 30 | NIOSH 1550 / 1551 | 01/04/2023 | 8434613 |
| QC Batch = Quality Control Batch | | | | | | | | |
| RL = Reporting Limit | | | | | | | | |

| Client ID: SRT-RF-2022-12-006 | | | | | Matrix: Passive Monitor | | | |
|----------------------------------|---------------------|------------|----------------------------|--------|--|-------------------|------------------|----------|
| BV Labs ID: URY005 | | | | | Sample Media: AT 566/3M3500+Monitor Charcoal | | | |
| Date Sampled: 12/26/2022 | | | | | Sampling Time (Minutes): 480 | | | |
| ANALYTE | Samp Rate cc/min | Mass ug | Concentration mg/m3 ppm | | RL ug | Test Method | Date Analyzed | QC Batch |
| Benzene | 9.7 | <0.50 | <0.11 | <0.034 | 0.50 | NOV SOP-00005 | 01/04/2023 | 8431947 |
| THCs as n-Hexane | 9.9 | <30 | <6.3 | <1.8 | 30 | NIOSH 1550 / 1551 | 01/04/2023 | 8434613 |
| QC Batch = Quality Control Batch | | | | | | | | |
| RL = Reporting Limit | | | | | | | | |

| Client ID: SRT-RF-2022-12-007 | | | | | Matrix: Passive Monitor | | | |
|----------------------------------|---------------------|------------|----------------------------|--------|--|-------------------|------------------|----------|
| BV Labs ID: URY006 | | | | | Sample Media: AT 566/3M3500+Monitor Charcoal | | | |
| Date Sampled: 12/26/2022 | | | | | Sampling Time (Minutes): 480 | | | |
| ANALYTE | Samp Rate cc/min | Mass ug | Concentration mg/m3 ppm | | RL ug | Test Method | Date Analyzed | QC Batch |
| Benzene | 9.7 | <0.50 | <0.11 | <0.034 | 0.50 | NOV SOP-00005 | 01/04/2023 | 8431947 |
| THCs as n-Hexane | 9.9 | <30 | <6.3 | <1.8 | 30 | NIOSH 1550 / 1551 | 01/04/2023 | 8434613 |
| QC Batch = Quality Control Batch | | | | | | | | |
| RL = Reporting Limit | | | | | | | | |

| Client ID: SRT-RF-2022-12-008 | | | | | Matrix: Passive Monitor | | | |
|----------------------------------|---------------------|------------|----------------------------|--------|--|-------------------|------------------|----------|
| BV Labs ID: URY007 | | | | | Sample Media: AT 566/3M3500+Monitor Charcoal | | | |
| Date Sampled: 12/26/2022 | | | | | Sampling Time (Minutes): 360 | | | |
| ANALYTE | Samp Rate cc/min | Mass ug | Concentration mg/m3 ppm | | RL ug | Test Method | Date Analyzed | QC Batch |
| Benzene | 9.7 | <0.50 | <0.14 | <0.045 | 0.50 | NOV SOP-00005 | 01/04/2023 | 8431947 |
| THCs as n-Hexane | 9.9 | <30 | <8.4 | <2.4 | 30 | NIOSH 1550 / 1551 | 01/04/2023 | 8434613 |
| QC Batch = Quality Control Batch | | | | | | | | |
| RL = Reporting Limit | | | | | | | | |



BUREAU
VERITAS

BV Labs Job #: C2AU770

Report Date: 01/09/2023

ESSO SRIRACHA REFINERY

Client Project #: SRT-RF-2022-12

ANALYTICAL RESULTS

| | | | | | | | | |
|----------------------------------|----------------------|-------|---------------|-----|------|-------------------|--------------------------------|----------|
| Client ID: | SRT-RF-2022-12-BLANK | | | | | Matrix: | Passive Monitor | |
| BV Labs ID: | URY008 | | | | | Sample Media: | AT 566/3M3500+Monitor Charcoal | |
| Date Sampled: | | | | | | | | |
| | Samp Rate | Mass | Concentration | | RL | | Date | |
| ANALYTE | cc/min | ug | mg/m3 | ppm | ug | Test Method | Analyzed | QC Batch |
| Benzene | 9.7 | <0.50 | N/A | N/A | 0.50 | NOV SOP-00005 | 01/04/2023 | 8431947 |
| THCs as n-Hexane | 9.9 | <30 | N/A | N/A | 30 | NIOSH 1550 / 1551 | 01/04/2023 | 8434613 |
| QC Batch = Quality Control Batch | | | | | | | | |
| RL = Reporting Limit | | | | | | | | |



BUREAU
VERITAS

BV Labs Job #: C2AU770

Report Date: 01/09/2023

ESSO SRIRACHA REFINERY

Client Project #: SRT-RF-2022-12

GENERAL COMMENTS

Unless otherwise noted below the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and /or do not adversely affect the reported results and 3) the industrial hygiene results have not been blank corrected.

The client provided their pertinent field sampling data on the analysis request paperwork submitted with the samples. Results apply to the sample as received.

Results relate only to the items tested.



QUALITY ASSURANCE REPORT

| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | % Recovery | UNITS | QC Limits |
|----------------|------|--------------|-----------|---------------|-------|------------|-------|-----------|
| 8431947 | CWX | LCS | Benzene | 01/03/2023 | | 92 | % | 68 - 122 |
| 8431947 | CWX | LCS DUP | Benzene | 01/03/2023 | | 91 | % | 68 - 122 |
| 8431947 | CWX | LCS/LCSD RPD | Benzene | 01/03/2023 | 0.90 | | % | 20 |
| 8431947 | CWX | Method Blank | Benzene | 01/03/2023 | <1.0 | | ug | |

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

LCS: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.