

**SYNTHETIC OILS AND LUBRICANTS FOR THE  
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING**

**TECHNICAL SPECIFICATIONS**

**GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL  
EQUAL)**

**Item No. 1:**

**SYNTHETIC COMPRESSOR OIL, ISO 100**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Compressor Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical Pumps and Motors at East Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON CETUS DE, ISO 100 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON CETUS DE
- 2.2 Product Number: 293022
- 2.3 Bulk Amount: 5 gallon pail
- 2.4 Grade: ISO 100

**3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 15.9
- 3.2 Flash Point: 482 degrees F
- 3.3 Viscosity Index: 84
- 3.4 Pour Point: -31 degrees F

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

**5.0 APPLICATIONS:**

- 5.1 Use for critical air compressors.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group 1**

#### **Item No. 2:**

#### **SYNTHETIC COMPRESSOR OIL FG, ISO 150**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Compressor Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical Pumps and Motors at Northeast Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON CETUS HIPERSYN OIL, ISO 150 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON CETUS HIPERSYN OIL
- 2.2 Product Number: 259140
- 2.3 Bulk Amount: 55 gallon drum
- 2.4 Grade: ISO 150

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 33.9
- 3.2 Flash Point: 500 degrees F
- 3.3 Viscosity Index: 142
- 3.4 Pour Point: -31 degrees F

#### **4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

- 5.1 Use for critical air compressors.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 3:**

#### **SYNTHETIC COMPRESSOR OIL FG, ISO 220**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Compressor Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical Pumps and Motors at Southeast Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON CETUS HIPERSYN OIL, ISO 220 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON CETUS HIPERSYN OIL
- 2.2 Product Number: 259141
- 2.3 Grade: ISO 220
- 2.4 Bulk Amount: 55 gallon drum

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 34.3
- 3.2 Flash Point: 500 degrees F
- 3.3 Viscosity Index: 152
- 3.4 Pour Point: -29 degrees F

#### **4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

- 5.1 Use for critical air compressors.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 4:**

#### **SYNTHETIC COMPRESSOR OIL FG, ISO 460**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Compressor Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical Pumps and Motors at East Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON CETUS HIPERSYN OIL, ISO 460 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON CETUS HIPERSYN OIL
- 2.2 Product Number: 259143
- 2.3 Bulk Amount: 55 gallon drum
- 2.4 Grade: ISO 460

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 32.0
- 3.2 Flash Point: 500 degrees F
- 3.3 Viscosity Index: 142
- 3.4 Pour Point: -22 degrees F

#### **4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

- 5.1 Use for critical air compressors.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 5:**

#### **SYNTHETIC COMPRESSOR OIL FG, ISO 68**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Compressor Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at Northeast Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON CETUS HIPERSYN OIL, ISO 68 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON CETUS HIPERSYN OIL
- 2.2 Product Number: 259138
- 2.3 Bulk Amount: 55 gallon drum
- 2.4 Grade: ISO 68

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 35.1
- 3.2 Flash Point: 500 degrees F
- 3.3 Viscosity Index: 137
- 3.4 Pour Point: -36 degrees F

#### **4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

- 5.1 Use for critical air compressors.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 6:**

#### **HYDRAULIC OIL AW, ISO 32**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Hydraulic Oil AW which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical Pumps and Motors at East Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON HYDRAULIC OIL AW, ISO 32 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON HYDRUALIC OIL AW
- 2.2 Product Number: 255675
- 2.3 Bulk Amount: 55 gallon drum
- 2.4 Grade: ISO 32

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 32.6
- 3.2 Flash Point: 428 degrees F
- 3.3 Viscosity Index: 98
- 3.4 Pour Point: -13 degrees F

#### **4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

- 5.1 Use for critical air compressors.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 7:**

#### **LUBRICATING OIL, FM ISO 100**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

1.1 It is the general intent of these specifications to describe a Turbine Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical Pumps and Motors at Southeast Water Purification Plant.

1.2 Manufacturer's Reference: CHEVRON Lube Oil FM 100 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

2.1 Make: CHEVRON Lube Oil FM 100

2.2 Product Number: 232105

2.3 Model: FM100

2.4 Bulk Amount: 55 gallon drum

#### **3.0 SPECIFICATIONS:**

3.1 API Gravity: 31.5

3.2 Flash Point: 500 degrees F

3.3 Viscosity Index: 105

3.4 Pour Point: +16 degrees F

3.5 AGMA Grade: 3

#### **4.0 FEATURES:**

4.1 Provides exceptional high temperature stability.

4.2 Contains oils with outstanding thermal and oxidation stability.

4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

5.1 Use for critical air compressors.

5.2 Use for equipment with low pressure system.

5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 8:**

#### **LUBRICATING OIL, FM ISO 220**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

1.1 It is the general intent of these specifications to describe a Lubricating Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical Pumps and Motors at Southeast Water Purification Plant.

1.2 Manufacturer's Reference: CHEVRON Lube Oil FM 220 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

2.1 Make: CHEVRON Lube Oil FM 220

2.2 Product Number: 255106

2.3 Model: FM220

2.4 Bulk Amount: 55 gallon drum

#### **3.0 SPECIFICATIONS:**

3.1 API Gravity: 30.7

3.2 Flash Point: 500 degrees F

3.3 Viscosity Index: 112

3.4 Pour Point: +16 degrees F

3.5 AGMA Grade: 5

#### **4.0 FEATURES:**

4.1 Provides exceptional high temperature stability.

4.2 Contains oils with outstanding thermal and oxidation stability.

4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

5.1 Use for critical air compressors.

5.2 Use for equipment with low pressure system.

5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 9:**

#### **LUBRICATING OIL, FM ISO 460**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Lubricating Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical devices not limited to Clarifier mechanisms at Southeast Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON Lube Oil FM 460 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON Lube Oil FM 460
- 2.2 Product Number: 232106
- 2.3 Model: FM460
- 2.4 Bulk Amount: 55 gallon drum

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 29.2
- 3.2 Flash Point: 469 degrees F
- 3.3 Viscosity Index: 118
- 3.4 Pour Point: +16 degrees F
- 3.5 AGMA Grade: 7 compounded

#### **4.0 FEATURES:**

- 4.1 Provides exceptional high temperature stability.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

- 5.1 Use for critical air compressors.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 10:**

#### **FOOD MACHINERY GREASE, FM CSC EP**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Food Machinery Grease which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical water treatment equipment at East Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON FOOD MACHINERY GREASE, FM CSC EP or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON PREMIUM FOOD MACHINERY GREASE
- 2.2 Product Number: 230206
- 2.3 Model: FM CSC EP NLGI # 2
- 2.4 Bulk Amount: 14 oz. tube

#### **3.0 SPECIFICATIONS:**

- 3.1 Operating Temp: -40 degrees F to 400 degrees F
- 3.2 Flash Point: 429 degrees F
- 3.3 Viscosity Index: 90
- 3.4 Pour Point: +9 degrees F
- 3.5 Dropping Point: 572 degrees F
- 3.6 ISO Viscosity Grade: 100
- 3.7 Color: Tan

#### **4.0 FEATURES:**

- 4.1 High performance product and water resistant.
- 4.2 Food Grade white oils containing a highly effective rust inhibitor system.
- 4.3 Contains advanced calcium sulfonate complex thickener.
- 4.4 Formulated for the food processing and canning industries.

#### **5.0 APPLICATIONS:**

- 5.1 Preferred for general plant lubrication with grease packed bearings.
- 5.2 Suitable for use in centrifugal pumps.
- 5.3 Complies with FDA requirements for lubricants with incidental food contact.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 11, 12, & 13:**

#### **HYDRAULIC OIL, ISO GRADE 46**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Hydraulic Oil which will be used in the Department of Public Works and Engineering Wastewater Treatment plants to provide effective lubrication to critical equipment (Turblex Blowers).
- 1.2 Manufacturer's Reference: CHEVRON RANDO HDZ OIL, ISO GRADE-46 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: CHEVRON
- 2.2 Product Number: 273261
- 2.3 Bulk Amount: 55 gallon drum, 5 gallon bucket/pail, or bulk delivery to city lubrication units
- 2.4 Grade: ISO 46
- 2.5 Operating Temps: -47 degrees F to 300 degrees F

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 32.2
- 3.2 Flash Point: 420 degrees F
- 3.3 Viscosity Index: 153
- 3.4 Pour Point: -49 degrees F

#### **4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains special foam and aeration suppressants.
- 4.3 Contains high viscosity index for better anti-wear protection.
- 4.4 Contains a water additive

#### **5.0 APPLICATIONS:**

- 5.1 Use for hydraulic or circulating oil systems
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 14:**

#### **TURBINE OIL, R&O ISO 150**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Turbine Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical Pumps and Motors at Southeast Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON REGAL R&O, ISO 150 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON REGAL R&O
- 2.2 Product Number: 273213
- 2.3 Grade: ISO 150
- 2.4 Bulk Amount: 55 gallon drum

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 29.8
- 3.2 Flash Point: 543 degrees F
- 3.3 Viscosity Index: 96
- 3.4 Pour Point: +5 degrees F

#### **4.0 FEATURES:**

- 4.1 Provides exceptional high temperature stability.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

- 5.1 Use for critical air compressors.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 15:**

#### **GEAR OIL, SAE 90**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Gear Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at Northeast Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON RPM GEAR OIL SAE 90 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: CHEVRON
- 2.2 Product Number: 250403
- 2.3 Bulk Amount: 5 gallon pail
- 2.4 Grade: SAE 90

#### **3.0 SPECIFICATIONS:**

- 3.1 Flash Point: 561 degrees F
- 3.2 Viscosity Index: 96
- 3.3 Pour Point: +10 degrees F

#### **4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.

#### **5.0 APPLICATIONS:**

- 5.1 Use for enclosed industrial gearboxes and bearings.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 16:**

#### **PREMIUM AUTOMOTIVE MOTOR OIL, SAE 10W-30**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Premium Motor Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical Pumps and Motors at East Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON SUPREME MOTOR OIL, SAE 10W-30 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON SUPREME MOTOR OIL
- 2.2 Product Number: 220155
- 2.3 Bulk Amount: 55 gallon drum
- 2.4 Grade: SAE 10W-30

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 30.5
- 3.2 Flash Point: 392 degrees F
- 3.3 Viscosity Index: 137
- 3.4 Pour Point: -33 degrees F

#### **4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

- 5.1 Use for critical air compressors.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use in electric motors.

## TECHNICAL SPECIFICATIONS

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 17, 18, 19:**

#### **SYNTHETIC OIL, EP, ISO GRADE 220**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Oil which will be used in the Department of Public Works and Engineering Wastewater Treatment plants to provide effective lubrication to critical equipment (Aeration Mixers).
- 1.2 Manufacturer's Reference: CHEVRON TEGRA SYNTHETIC EP GEAR LUBRICANT, ISO GRADE-220 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: CHEVRON
- 2.2 Product Number: 233917
- 2.3 Bulk Amount: 55 gallon drum, 5 gallon bucket/pail, or bulk delivery to city lubrication units
- 2.4 Grade: ISO 220
- 2.5 Operating Temps: -47 degrees F to 300 degrees F

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 33.8
- 3.2 Flash Point: 464 degrees F
- 3.3 Viscosity Index: 164
- 3.4 Pour Point: -49 degrees F
- 3.5 AGMA Grade: 5 EP

#### **4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.
- 4.4 Contains a water additive

#### **5.0 APPLICATIONS:**

- 5.1 Use for enclosed industrial gearboxes and bearings.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 20:**

#### **TURBINE OIL, GST ISO 100**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Turbine Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical Pumps and Motors at East Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON TURBINE OIL, GST ISO 100 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON GST OIL
- 2.2 Product Number: 253029
- 2.3 Bulk Amount: 55 gallon drum
- 2.4 Grade: ISO 100

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 31.4
- 3.2 Flash Point: 504 degrees F
- 3.3 Viscosity Index: 100
- 3.4 Pour Point: -22 degrees F
- 3.5 AGMA Grade: 3

#### **4.0 FEATURES:**

- 4.1 Provides exceptional high temperature stability.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

- 5.1 Use for critical air compressors.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 21:**

#### **TURBINE OILS, GST ISO 68**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Turbine Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical Pumps and Motors at Southeast Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON TURBINE OIL, GST ISO 68 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON GST OIL
- 2.2 Product Number: 253028
- 2.3 Model: ISO 68
- 2.4 Bulk Amount: 55 gallon drum

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 31.7
- 3.2 Flash Point: 473 degrees F
- 3.3 Viscosity Index: 102
- 3.4 Pour Point: -33 degrees F
- 3.5 AGMA Grade: 2

#### **4.0 FEATURES:**

- 4.1 Provides exceptional high temperature stability.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

- 5.1 Use for critical air compressors.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use in electric motors.

## **TECHNICAL SPECIFICATIONS**

### **GROUP 1: CHEVRON SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVAL EQUAL)**

#### **Group1**

#### **Item No. 22:**

#### **AUTOMATIC TRANSMISSION FLUID, MD-3**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Multi-purpose power transmission fluid which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical devices not limited to hydraulic accumulators' mechanisms at Southeast Water Purification Plant.
- 1.2 Manufacturer's Reference: CHEVRON Automatic Transmission Fluid MD-3 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: CHEVRON Automatic Transmission Fluid MD-3
- 2.2 Product Number: 226531
- 2.3 Model: ATF MD-3
- 2.4 Bulk Amount: 55 gallon drum

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 32.6
- 3.2 Flash Point: 388 degrees F
- 3.3 Viscosity Index: 169
- 3.4 Pour Point: -63 degrees F
- 3.5 AGMA Grade: 7 compounded

#### **4.0 FEATURES:**

- 4.1 Maintains friction control
- 4.2 Retains high temperature viscosity resulting in maximum oil film thickness and excellent wear protection.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

#### **5.0 APPLICATIONS:**

- 5.1 Use for critical hydraulic systems.
- 5.2 Use for equipment with low pressure system.
- 5.3 Suitable for use with transmissions applications.

**GROUP 2: CITGO SYNTHETIC GEAR LUBRICANTS (OR CITY APPROVED EQUAL)**

**Item No. 1, 2, & 3:**

**SYNTHETIC GEAR LUBRICANT, EP, ISO GRADE 220**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Gear Lubricant which will be used in the Department of Public Works and Engineering Wastewater Treatment plants to provide effective lubrication to critical equipment (Aeration Mixers)
- 1.2 Manufacturer's Reference: CITCO CITGEAR SYNTHETIC EP LUBRICANT, ISO GRADE-220 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: CITGO
- 2.2 Product Number: 632584001
- 2.3 Bulk Amount: 55 gallon drum, 5 gallon bucket/pail, or bulk delivery to city lubrication units
- 2.4 Grade: ISO 220
- 2.5 Operating Temps: -47 degrees F to 300 degrees F

**3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 33.6
- 3.2 Flash Point: 500 degrees F
- 3.3 Viscosity Index: 148
- 3.4 Pour Point: -54 degrees F
- 3.5 AGMA Grade: 5 EP

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and high viscosity index.
- 4.3 Exhibit low foaming tendencies and provide rust and corrosion protection
- 4.4 Contains a water additive

**5.0 APPLICATIONS:**

- 5.1 Use for lubricating industrial enclosed gears and bearings.
- 5.2 Use for equipment under high temperatures.
- 5.3 Use for equipment with continuous operation.

**GROUP 2: CITGO SYNTHETIC GEAR LUBRICANTS (OR CITY APPROVED EQUAL)**

**Group 2**

**Item No. 4, 5 & 6:**

**SYNTHETIC GEAR LUBRICANT, EP, ISO GRADE 460**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Gear Lubricant which will be used in the Department of Public Works and Engineering Wastewater Treatment plants to provide effective lubrication to critical equipment (Aeration Mixers)
- 1.2 Manufacturer's Reference: CITCO CITGEAR SYNTHETIC EP LUBRICANT, ISO GRADE-460 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: CITGO
- 2.2 Product Number: 632587001
- 2.3 Bulk Amount: 55 gallon drum, 5 gallon bucket/pail, or bulk delivery to city lubrication units
- 2.4 Grade: ISO 460
- 2.5 Operating Temps: -47 degrees F to 300 degrees F

**3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 32.3
- 3.2 Flash Point: 460 degrees F
- 3.3 Viscosity Index: 152
- 3.4 Pour Point: -44 degrees F
- 3.5 AGMA Grade: 7 EP

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and high viscosity index.
- 4.3 Exhibit low foaming tendencies and provide rust and corrosion protection
- 4.4 Contains a water additive

**5.0 APPLICATIONS:**

- 5.1 Use for lubricating industrial enclosed gears and bearings.
- 5.2 Use for equipment under high temperatures.
- 5.3 Use for equipment with continuous operation.

**GROUP 3: CONOCO PHILLIPS SYNTHETIC GEAR LUBRICANTS (OR CITY APPROVED EQUAL)**

**Item No. 1, 2, & 3:**

**SYNTHETIC GEAR LUBRICANT, EP, ISO GRADE 220**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Gear Oil which will be used in the Department of Public Works and Engineering Wastewater Treatment plants to provide effective lubrication to critical equipment (Aeration Mixers).
- 1.2 Manufacturer's Reference: CONOCO PHILLIPS SYNCON EP PLUS GEAR LUBRICANT, ISO GRADE-220 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: CONOCO PHILLIPS
- 2.2 Product Number: SYNCON EP PLUS 220
- 2.3 Bulk Amount: 55 gallon drum, 5 gallon bucket/pail, or bulk delivery to city lubrication units
- 2.4 Grade: ISO 220
- 2.5 Operating Temps: -47 degrees F to 300 degrees F

**3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 33.8
- 3.2 Flash Point: 469 degrees F
- 3.3 Viscosity Index: 153
- 3.4 Pour Point: -49 degrees F
- 3.5 AGMA Grade: 5 EP
- 3.6 High VI Synthetic polyalphaolefin (PAO) base oils

**4.0 FEATURES:**

- 4.1 Oxidation resistance and thermal stability at high temperatures.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.
- 4.4 Contains Non-Chlorinated extreme pressure additive package
- 4.5 Contains a water additive

**5.0 APPLICATIONS:**

- 5.1 Use for enclosed industrial gearboxes and bearings.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 4: MOBIL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Item No. 1:**

**GEAR OIL, EP, POLYALKYLENE GLYCOL (PAG), FOOD GRADE, ISO 460**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe an EP Food Grade Gear lubricant which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at Northeast Water Purification Plant.
- 1.2 Manufacturer's Reference: MOBIL GLYGOYLE EP ISO GRADE 460 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: MOBIL
- 2.2 Product Number: GLYGOYLE 460
- 2.3 Bulk Amount: 5 gallon pail
- 2.4 Grade: ISO 460

**3.0 SPECIFICATIONS:**

- 3.1 Flash Point: 509 degrees F
- 3.2 Viscosity Index: 225
- 3.3 Pour Point: -27.4 degrees F
- 3.4 Registered with NSF for H1 application

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.

**5.0 APPLICATIONS:**

- 5.1 Use for lubrication of industrial gears and anti-friction bearings.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 4: MOBIL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Group 4**

**Item No. 2:**

**GREASE, FOOD GRADE, NLGI GRADE 2**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Food Grade Grease NGLI #2 which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at Northeast Water Purification Plant.
- 1.2 Manufacturer's Reference: MOBIL GREASE FM 222 NLGI GRADE 2 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: MOBIL
- 2.2 Product Number: FM 222
- 2.3 Bulk Amount: 14 oz. tube
- 2.4 Grade: NLGI #2

**3.0 SPECIFICATIONS:**

- 3.1 Thickener Type: Aluminum Complex
- 3.2 Color: White
- 3.3 Registered with NSF for H1 application

**4.0 FEATURES:**

- 4.1 Operates in a variety of environments which covers extreme high and low temperatures.
- 4.2 Protects against wear and shock load conditions.
- 4.3 Contains water resistant properties to protect equipment against rust.

**5.0 APPLICATIONS:**

- 5.1 Use for general rotating equipment lubrication
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 4: MOBIL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Group 4**

**Item No. 3:**

**GREASE, EP, NLGI GRADE 2**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Multi-Purpose Industrial Grease which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at Northeast Water Purification Plant and at various Wastewater Operations facilities.
- 1.2 Manufacturer's Reference: Mobil Mobilux EP2 Grease, EP, NGLI Grade 2 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: MOBIL
- 2.2 Product Number: MOBILUX EP 2
- 2.3 Bulk Amount: 14 oz. tube
- 2.4 Grade: NLGI #2

**3.0 SPECIFICATIONS:**

- 3.1 Operating Temperature Range: -4 to 248 degrees F
- 3.2 Thickener Type: Lithium
- 3.3 Color: Brown

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

**5.0 APPLICATIONS:**

- 5.1 Use for multi-purpose applications in antifriction and plain bearings, bushings, and pins under normal conditions
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 4: MOBIL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Group 4**

**Item No. 4:**

**HYDRAULIC OIL, ANTIWEAR, ISO 32**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Hydraulic Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at Northeast Water Purification Plant.
- 1.2 Manufacturer's Reference: MOBIL NUTO H 32 ISO GRADE 32or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: MOBIL
- 2.2 Product Number: NUTO H 32
- 2.3 Bulk Amount: 5 gallon pail
- 2.4 Grade: ISO 32

**3.0 SPECIFICATIONS:**

- 3.1 Flash Point: 413 degrees F
- 3.2 Viscosity Index: 104
- 3.3 Pour Point: -11.2 degrees F

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

**5.0 APPLICATIONS:**

- 5.1 Use for gear, bearing, and circulatory systems
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 4: MOBIL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Group 4**

**Item No. 5:**

**LUBRICANT, FOOD GRADE, ISO GRADE 220**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Food Grade Lubricant which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at Northeast Water Purification Plant.
- 1.2 Manufacturer's Reference: MOBIL SHC CIBUS ISO 220 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: MOBIL
- 2.2 Product Number: SHC CIBUS 220
- 2.3 Bulk Amount: 55 gallon drum
- 2.4 Grade: ISO 220

**3.0 SPECIFICATIONS:**

- 3.1 Flash Point: 525 degrees F
- 3.2 Viscosity Index: 139
- 3.3 Pour Point: -11.2 degrees F
- 3.4 Registered with NSF for H1 application

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.

**5.0 APPLICATIONS:**

- 5.1 Use for gear, bearing, and circulatory systems
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 4: MOBIL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Group 4**

**Item No. 6:**

**GEAR OIL, EP, ISO 220**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe an EP Gear Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at Northeast Water Purification Plant.
- 1.2 Manufacturer's Reference: MOBIL SPARTAN EP 220 ISO GRADE 220 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: MOBIL
- 2.2 Product Number: SPARTAN EP 220
- 2.3 Bulk Amount: 55 gallon drum
- 2.4 Grade: ISO 220

**3.0 SPECIFICATIONS:**

- 3.1 Flash Point: 464 degrees F
- 3.2 Viscosity Index: 97
- 3.3 Pour Point: -11.2 degrees F

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

**5.0 APPLICATIONS:**

- 5.1 Use for gear, bearing, and circulatory systems
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

## **GROUP 5: ROYAL PURPLE HYDRAULIC OIL (OR CITY APPROVED EQUAL)**

### **Item No. 1, 2 & 3:**

### **SYNTHETIC HYDRAULIC OIL, ISO GRADE 46**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Hydraulic Oil which will be used in the Department of Public Works and Engineering Wastewater Treatment plants to provide effective lubrication to critical equipment (Turblex Blowers).
- 1.2 Manufacturer's Reference: ROYAL PURPLE SYNDRAULIC ISO GRADE-46 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: ROYAL PURPLE
- 2.2 Product Number: SYNDRAULIC 46
- 2.3 Bulk Amount: 55 gallon drum, 5 gallon bucket/pail, or bulk delivery to city lubrication units
- 2.4 Grade: 46

#### **3.0 SPECIFICATIONS:**

- 3.1 Flash Point: 415 degrees F
- 3.2 Viscosity Index: 105
- 3.3 Pour Point: -44 degrees F
- 3.4 ISO 4406 Cleanliness level of 14/13/11

#### **4.0 FEATURES:**

- 4.1 Has a high film strength and anti-wear properties.
- 4.2 Has good oxidation stability for an extended oil life.
- 4.3 Is clean, energy efficient, and can lower operating temperatures in hydraulic systems for consistent performance.
- 4.4 Contains a water additive

#### **5.0 APPLICATIONS:**

- 5.1 Use for enclosed industrial gearboxes, bearings and circulating oil systems.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 6: SHELL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Item No. 1.**

**SYNTHETIC BEARING AND CIRCULATING OIL, ISO GRADE 100**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at East Water Purification Plant.
- 1.2 Manufacturer's Reference: SHELL MORLINA S3-BA-100 ISO GRADE-100 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: SHELL
- 2.2 Product Number: S3-BA-100
- 2.3 Bulk Amount: 5 gallon pail
- 2.4 Grade: 100

**3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 100
- 3.2 Flash Point: 446 degrees F
- 3.3 Viscosity Index: 95
- 3.4 Pour Point: 10.4 degrees F

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.

**5.0 APPLICATIONS:**

- 5.1 Use for enclosed industrial gearboxes, bearings and circulating oil systems.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 6: SHELL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Group 6**

**Item No. 2, 3, & 4**

**SYNTHETIC BEARING AND CIRCULATING OIL, ISO GRADE 100**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Oil which will be used in the Department of Public Works and Engineering Wastewater Treatment plants to provide effective lubrication to critical equipment (Turblex Blowers).
- 1.2 Manufacturer's Reference: SHELL MORLINA S4-B-100 ISO GRADE-100 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: SHELL
- 2.2 Product Number: S4-B-100
- 2.3 Bulk Amount: 55 gallon drum, 5 gallon bucket/pail, or bulk delivery to city lubrication units
- 2.4 Grade: 100

**3.0 SPECIFICATIONS:**

- 3.1 Flash Point: 539 degrees F
- 3.2 Viscosity Index: 148
- 3.3 Pour Point: -65 degrees F

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.
- 4.4 Contains a water additive

**5.0 APPLICATIONS:**

- 5.1 Use for enclosed industrial gearboxes, bearings and circulating oil systems.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 6: SHELL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Group 6**

**Item No. 5, 6 & 7:**

**SYNTHETIC BEARING AND CIRCULATING OIL, ISO GRADE 220**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Oil which will be used in the Department of Public Works and Engineering Wastewater Treatment plants to provide effective lubrication to critical equipment (Turblex Blowers).
- 1.2 Manufacturer's Reference: SHELL MORLINA S4-B-220 ISO GRADE-220 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: SHELL
- 2.2 Product Number: S4-B-220
- 2.3 Bulk Amount: 55 gallon drum, 5 gallon bucket/pail, or bulk delivery to city lubrication units
- 2.4 Grade: 220

**3.0 SPECIFICATIONS:**

- 3.1 Flash Point: 464 degrees F
- 3.2 Viscosity Index: 149
- 3.3 Pour Point: -54 degrees F

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.
- 4.4 Contains a water additive

**5.0 APPLICATIONS:**

- 5.1 Use for enclosed industrial gearboxes, bearings and circulating oil systems.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 6: SHELL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Group 6**

**Item No. 8, 9 & 10:**

**SYNTHETIC BEARING AND CIRCULATING OIL, ISO GRADE 320**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Oil which will be used in the Department of Public Works and Engineering Wastewater Treatment plants to provide effective lubrication to critical equipment (Turblex Blowers).
- 1.2 Manufacturer's Reference: SHELL MORLINA S4-B-320 ISO GRADE-320 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: SHELL
- 2.2 Product Number: S4-B-320
- 2.3 Bulk Amount: 55 gallon drum, 5 gallon bucket/pail, or bulk delivery to city lubrication units
- 2.4 Grade: 320

**3.0 SPECIFICATIONS:**

- 3.1 Flash Point: 518 degrees F
- 3.2 Viscosity Index: 148
- 3.3 Pour Point: -49 degrees F

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.
- 4.4 Contains a water additive

**5.0 APPLICATIONS:**

- 5.1 Use for enclosed industrial gearboxes, bearings and circulating oil systems.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 6: SHELL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Group 6**

**Item No. 11:**

**INDUSTRIAL HYDRAULIC FLUID, ISO GRADE 100**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Hydraulic Fluid which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at East Water Purification Plant.
- 1.2 Manufacturer's Reference: SHELL TELLUS S2-M-68 ISO GRADE-68 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: SHELL
- 2.2 Product Number: TELLUS S2-M-68
- 2.3 Bulk Amount: 5 gallon pail
- 2.4 Grade: 68

**3.0 SPECIFICATIONS:**

- 3.1 Flash Point: 455 degrees F
- 3.2 Viscosity Index: 97
- 3.3 Pour Point: -11.2 degrees F

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.

**5.0 APPLICATIONS:**

- 5.1 Use for enclosed industrial gearboxes.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 6: SHELL SYNTHETIC OILS AND LUBRICANTS (OR CITY APPROVED EQUAL)**

**Group 6**

**Item No. 12:**

**TURBINE OIL, ISO 46**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Turbine Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at East Water Purification Plant.
- 1.2 Manufacturer's Reference: SHELL TURBO T ISO GRADE-46 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: SHELL
- 2.2 Product Number: 65603
- 2.3 Bulk Amount: 55 gallon drum
- 2.4 Grade: 46

**3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 31.8
- 3.2 Flash Point: 430 degrees F
- 3.3 Viscosity Index: 105
- 3.4 Pour Point: -10 degrees F

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.

**5.0 APPLICATIONS:**

- 5.1 Use for enclosed industrial gearboxes.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

## **GROUP 7: TOTAL SYNTHETIC GEAR OILS (OR CITY APPROVED EQUAL)**

### **Item No. 1, 2, & 3:**

#### **SYNTHETIC GEAR OIL, ISO GRADE 460**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Gear Oil which will be used in the Department of Public Works and Engineering Wastewater Treatment plants to provide effective lubrication to critical equipment (Clarifiers).
- 1.2 Manufacturer's Reference: TOTAL SYNOLAN PRO 1000 GEAR OIL ISO GRADE-460 or City approved equal.

#### **2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: TOTAL LUBRICANTS
- 2.2 Product Number: SYNOLAN PRO 1000 ISO 460
- 2.3 Bulk Amount: 55 gallon drum, 5 gallon bucket/pail, or bulk delivery to city lubrication units
- 2.4 Grade: ISO 460
- 2.5 Operating Temps: -20 degrees F to 450 degrees F

#### **3.0 SPECIFICATIONS:**

- 3.1 API Gravity: 29.2
- 3.2 Flash Point: 465 degrees F
- 3.3 Viscosity Index: 124
- 3.4 Pour Point: -20 degrees F
- 3.5 AGMA Grade: 7
- 3.6 Synthetic polyalphaolefin (PAO) base oils

#### **4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.
- 4.4 Contains a water additive

#### **5.0 APPLICATIONS:**

- 5.1 Use for enclosed industrial gearboxes, bearings and circulating oil systems.
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

**GROUP 8: MINERAL SPIRITS PETROLEUM DISTILLATES**

**Item No. 1: 55 gallon drums of Mineral Spirits Petroleum Distillates N.O.S 3, PG III UN1268**

**Item No. 2: Totes of Mineral Spirits Petroleum Distillates N.O.S 3, PG III UN1268**

**GROUP 9: BREDEL HOSE PUMPS WATSON MARLOW/BREDEL HOSE LUBRICANT (OR CITY APPROVED EQUAL)**

**Item No. 1:**

**HOSE LUBRICANT, FOOD GRADE**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Food Grade Hose Lubricant which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at Northeast Water Purification Plant.
- 1.2 Manufacturer's Reference: GENUINE WATSON MARLOW/BREDEL HOSE LUBRICANT

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: BREDEL HOSE PUMPS
- 2.2 Product Number: 500143007
- 2.3 Bulk Amount: 55 gallon drum
- 2.4 Registered with NSF for H1 application

**GROUP 10: PULSARFEEDER MULT-PURPOSE OIL (OR CITY APPROVED EQUAL)**

**Item No. 1:**

**OIL, MULTI-PURPOSE, NLGI Grade 1.5**

Shall meet the following minimum specifications

**1.0 GENERAL:**

1.1 It is the general intent of these specifications to describe a Multi-Purpose Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at Northeast Water Purification Plant.

1.2 Manufacturer's Reference: PULSARLUBE PL1 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Make: PULSARLUBE
- 2.2 Product Number: PL 1
- 2.3 Bulk Amount: 5 gallon pail
- 2.4 Grade: NLGI #1.5

**3.0 SPECIFICATIONS:**

- 3.1 Operating Temperature Range: - 4 to 302 degrees F
- 3.2 Thickener Type: Lithium Complex
- 3.3 Color: Yellow

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains oils with outstanding thermal and oxidation stability.
- 4.3 Contains corrosion inhibitors to protect equipment from corrosion & rust.

**5.0 APPLICATIONS:**

- 5.1 Use for automatic single point grease lubricators
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for bearings under extreme pressure

**GROUP 11: SUMMIT INDUSTRIAL FOOD GRADE OIL (OR CITY APPROVED EQUAL)**

**Item No. 1**

**SYNTHETIC COMPRESSOR OIL FOOD GRADE, ISO GRADE 46**

Shall meet the following minimum specifications

**1.0 GENERAL:**

- 1.1 It is the general intent of these specifications to describe a Synthetic Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment (Bellaire Braes Plant).
- 1.2 Manufacturer's Reference: SUMMIT FG 200 or City approved equal.

**2.0 PRODUCT DESCRIPTION:**

- 2.1 Manufacturer: SUMMIT INDUSTRIAL
- 2.2 Product Number: FG-200
- 2.3 Bulk Amount: 55 gallon drum
- 2.4 Grade: 46

**3.0 SPECIFICATIONS:**

- 3.1 Flash Point: 530 degrees F
- 3.2 Viscosity Index: 132
- 3.3 Pour Point: -71 degrees F
- 3.4 Registered with NSF for H1 application

**4.0 FEATURES:**

- 4.1 Contains advanced formulas and anti-wear properties.
- 4.2 Contains low pour point and low temperature fluidity.
- 4.3 Contains high viscosity index for better anti-wear protection.

**5.0 APPLICATIONS:**

- 5.1 Use for rotary screw compressors and other applications
- 5.2 Use for equipment under heavy loads or low speeds.
- 5.3 Use for equipment with continuous operation.

## **GROUP 12: VEGETABLE OIL**

### **Item No. 1:**

#### **VEGETABLE OIL**

Shall meet the following minimum specifications

#### **1.0 GENERAL:**

It is the general intent of these specifications to describe a Vegetable Oil which will be used in the Department of Public Works and Engineering Drinking Water Treatment plants to provide effective lubrication to critical equipment at the Northeast Water Purification Plant.

#### **2.0 SPECIFICATIONS:**

- 2.1 Soybean Oil: 100% Pure
- 2.2 Bulk Amount: 35 LB. Container
- 2.3 Color: Yellow